

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

THE AMERICAN ELEVATOR AND GRAIN TRADE.

Entered as second-class matter June 26, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY
(INCORPORATED). VOL XXVII.

CHICAGO, ILLINOIS, MAY 15, 1909.

No. 11. { ONE DOLLAR PER ANNUM,
SINGLE COPY, TEN CENTS.

WE MANUFACTURE MACHINERY

... for ...

Elevating and Conveying Grain, including all
of the Standard Appliances for this purpose.

We do not manufacture shellers, clippers, cleaners or special machines
for treating grain, but confine our efforts strictly to machinery for
HANDLING GRAIN.

Let us figure with you.

STEPHENS-ADAMSON MFG. CO.

Manufacturers of Conveying and
Transmission Machinery

MAIN OFFICE AND WORKS, AURORA, ILL.

NEW YORK OFFICE—43 Exchange Place

CHICAGO OFFICE—First National Bank Bldg.



Grain Elevator Belting

of special construction

Best Made
and Cheapest

Get our prices

The Gutta Percha
and
Rubber Mfg. Co.

224-226 Randolph Street
CHICAGO



We manufacture everything for the grain elevator, including:

Salem Buckets
Spiral Conveyor
Power Shovels
Car Pullers
Friction Clutches

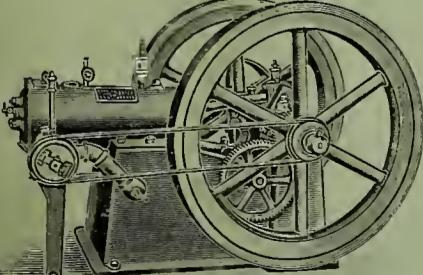
Sprocket Wheels
Link Belting
Shaft Bearings
Wagon Dumps
Turnheads

Flexible Spouts
Elevator Boots
Belt Conveyors
Rope Drives
Car Movers, Etc.

General Catalog No. 7 for the asking.

SKILLIN & RICHARDS MFG. CO., CHICAGO, ILL.

Reliable and Cheap



Power is what you get when
you use a

Hagan Gas or Gasoline Engine

Sold under a positive guarantee
to give perfect satisfaction.
Sizes 2-h. p. to 100-h. p. No
packing; no delicate parts.

Send for Catalogue "C."

HAGAN GAS ENGINE & MFG. CO., (Incorporated) Winchester, Ky.

The Engine for the Grain Trade

It is service that everybody wants in a gasoline engine.
Service is better than cheapness, especially in grain shipping and handling.
Don't experiment—get a certainty.

Foos Gas Engine Superiority

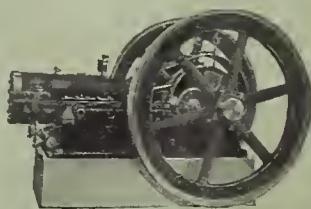
Is Proven by a Record of Twenty-One Years

During the TWENTY-ONE YEARS the Foos factory has grown to be the LARGEST GASOLINE ENGINE FACTORY IN THE WORLD. There's only one explanation.

FOOS GAS ENGINES MAKE GOOD

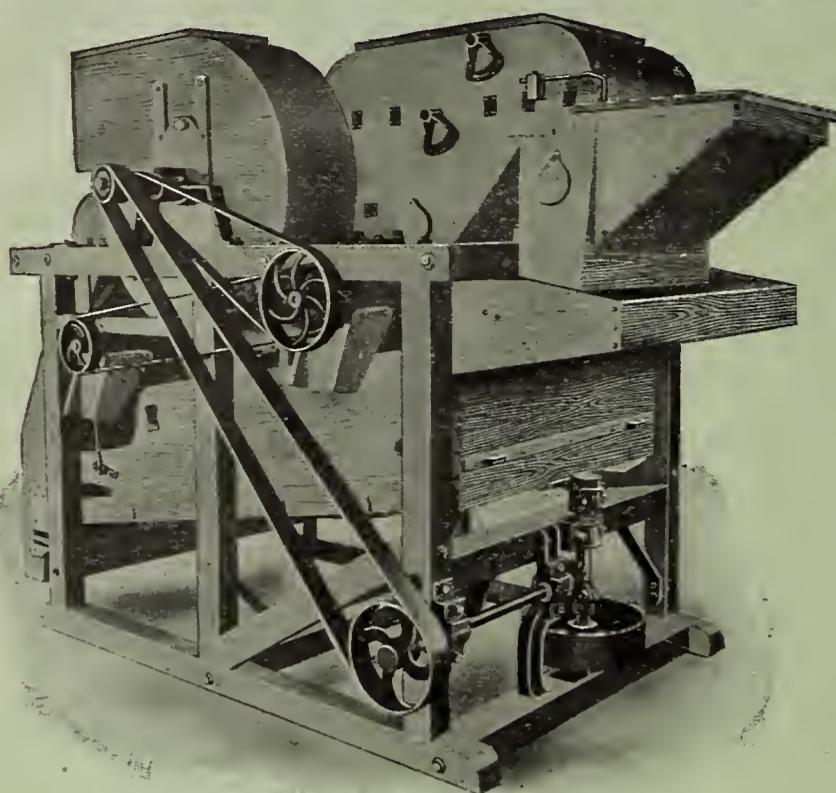
If you are about to install a gasoline engine you want service above everything else.

Send for the Foos Catalog No. 39 and read it. It will convince you by the best of reasons that the Foos engine should be your engine.



FOOS GAS ENGINE COMPANY
SPRINGFIELD, OHIO

The Ohio Oscillating Corn and Grain Cleaner



Agents in all parts of the U. S.

THE PHILIP SMITH MANUFACTURING CO.
Warehouse and Elevator Machinery and Power Transmission
SIDNEY, OHIO

THE BEST BUILT and GIVES BEST SATISFACTION

A perfect machine for cleaning Corn, Wheat or Oats. It meets every requirement of the Elevator trade. It is provided with scalping, main, seed or cockle screens; they are quickly interchangeable. The machine derives its motion from the fan shaft. The vertical eccentric shaft is driven by a pair of noiseless cut bevel gears from the lower counter, which in turn is driven direct from the fan shaft.

Our circular illustrates and describes this machine thoroughly, tells about the air currents, discharge spouts, slides and wickets. Guaranteed to give absolute satisfaction. Will clean all kinds of grain.

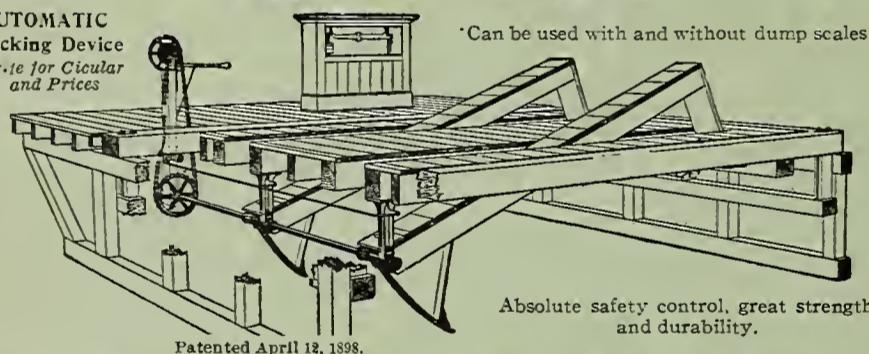
Have you seen our New Improved Chain Drag Feeders?

Send for our Catalogue, describing
CLEANERS, SHELLERS, DRAGS, MAN-LIFTS, ETC.

THE EVANS CONTROLLABLE WAGON DUMP

THE BEST WAGON DUMP BUILT

AUTOMATIC
Locking Device
Write for Circular
and Prices



Patented April 12, 1898.

MOULTON & EVANS,

Minneapolis, Minn.

SEEDS

Grain, Clover and Grass Seeds,
CHAS. E. PRUNTY,
7. 9 and 11 South Main St. SAINT LOUIS

Elevator Machinery and Supplies

FLOUR AND FEED MILL MACHINERY
STEAM AND GAS ENGINES

Pulleys, Shafting, General Power Transmission Machinery, Roll
Grinding and Corrugating

Largest Factory and Stock in Western Country

SEND FOR 450-PAGE CATALOG.

GREAT WESTERN MFG. CO.

General Office and Factory
LEAVENWORTH, KAN.

Warehouse and Salesrooms
1221-1223 Union Ave.
KANSAS CITY, MO.

NEW MARSEILLES DUSTLESS CYLINDER CORN SHELLERS

WE MAKE Hand and
Power Corn Shellers,
Horse Powers, Feed Grind-
ers, Portable Elevators
and Wagon Dumps, Pump-
Jacks, Grain Elevator
Machinery and Supplies.

Made in Several
Sizes,
Both Stationary and Port-
able Styles.

MARSEILLES MANUFACTURING COMPANY, Marseilles, Ill.

POSITIVELY GUARANTEED to shell either shucked or unshucked corn faster, with less power in proportion to capacity; take the corn off the cobs cleaner; clean both cobs and corn more perfectly; do less crushing or grinding of corn or cobs and save a larger per cent of the corn than any other cylinder sheller on the market. Send for Catalogue.

SPEAKS FOR ITSELF

Gainesville, Texas, May 12, 1908.
Marseilles Mfg. Co., Marseilles, Ill.—Gentlemen:—We purchased the first Shuck Corn Sheller you ever made, some eighteen or twenty years ago. Since then we have bought 12 or 15 of them, representing every improvement, and expect to buy several more this season. We have bought one or more of about every other make and think we are competent judges of such machinery. Your Shellers husk and shell the corn off the cob more thoroughly; save it more completely; clean both the shelled corn and the cobs more perfectly; require less power in proportion to capacity, are more durably constructed and cost less, loss of time and cost of repairs considered, than any sheller we have ever used. We have thrown out every other kind of Corn Sheller we ever bought and have replaced them with yours. KEEL & SON. By J. Z. Keel.

Branch Houses and General Agencies at Principal Distributing Cities.

"PERFECTION"
SEED SCOURER
AND CLEANER

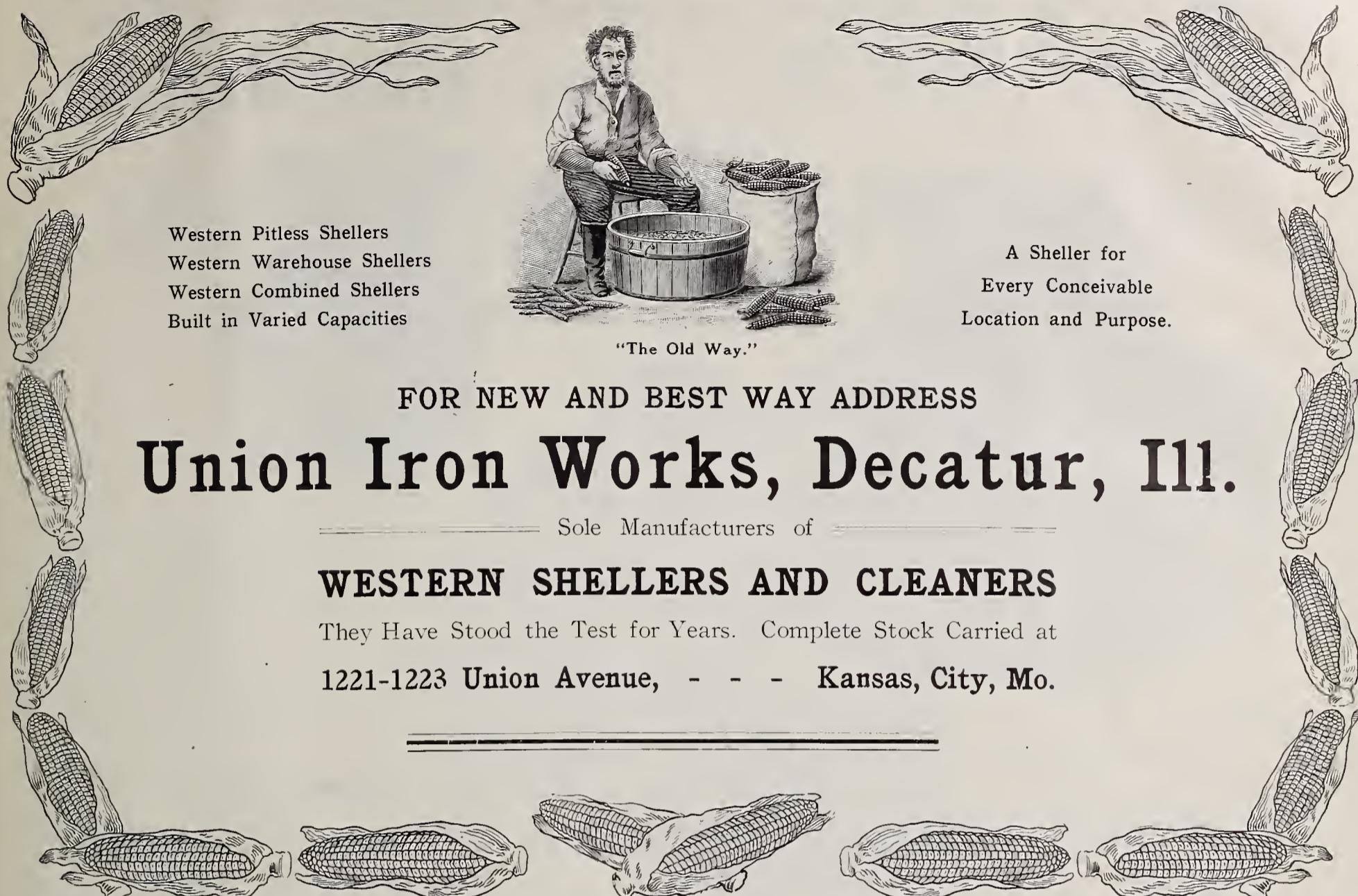
A Money Maker
Something New

Sidney Elevator
& Mfg. Co.

Sidney, Ohio.



Want ads. in this paper bring results.
Rates on application.



FOR NEW AND BEST WAY ADDRESS
Union Iron Works, Decatur, Ill.

Sole Manufacturers of

WESTERN SHELLERS AND CLEANERS

They Have Stood the Test for Years. Complete Stock Carried at

1221-1223 Union Avenue, - - - Kansas, City, Mo.

The American Cyclone Aspirator

Cleans Grain Pneumatically



of all foreign materials, such as chaff, dust and other impurities of a lighter specific gravity than the grain to be cleaned.

It is easily and quickly regulated to take out only the lightest dust, or to also take out oats and shrunken kernels from the heavier grain.

It does the work thoroughly, has a very large capacity and requires very little power.

It is inexpensive to install, operate and maintain, and on account of the great improvement it makes in the grain it is a machine of the greatest value to every grain dealer, miller and maltster.

These machines are built in two styles: All Steel Construction and in Combination Wood and Steel.

For further particulars, prices, etc., write the makers:

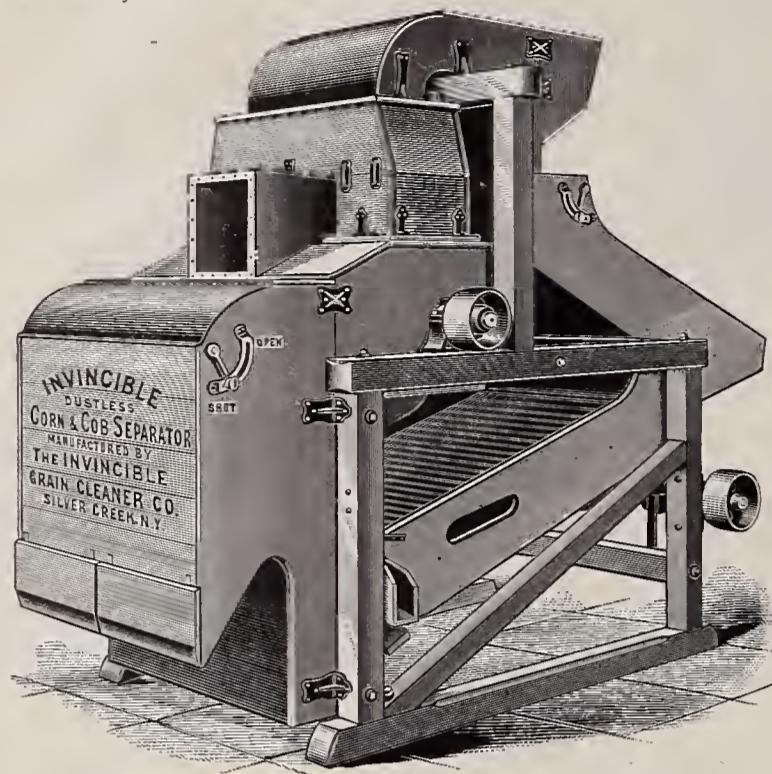
American Machinery & Construction Co.

103 West Water Street, Milwaukee, Wisconsin

CLEAN YOUR CORN

This Separator takes out cobs, silks and all foreign matter and gives a high grade of corn.

It is the most popular corn and cob separator on the market, the result of its extremely nice work. Order now.

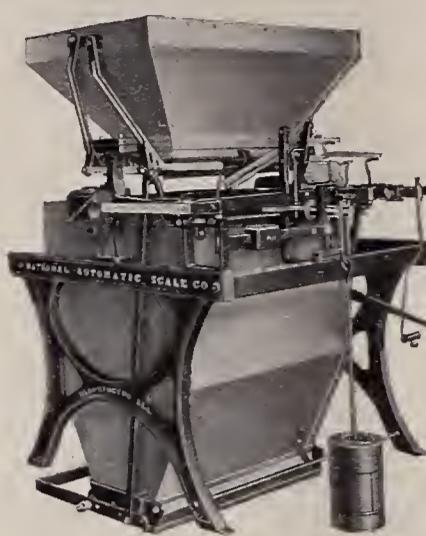


INVINCIBLE GRAIN CLEANER COMPANY
SILVER CREEK, N. Y., U. S. A.

REPRESENTED BY

J. H. Pank, 512 Traders' Bldg., Chicago, Ill.
Edward A. Ordway, 225 Exchange Bldg., Kansas City, Mo.
The Strong-Scott Mfg. Co., Minneapolis, Minn.
C. L. Hogle, 526 Board of Trade, Indianapolis, Ind.
Chas. Beatley, Terminal Hotel, St. Louis, Mo.
N. B. Trask, Lochiel Hotel, Harrisburg, Pa.
J. J. Ross Mill Furnishing Co., Portland, Ore.

The NATIONAL



is the Automatic Scale you have been looking for. A scale that will cause you no worry and one that you can **swear by**. A scale that will **accurately** weigh your grain while you do something else. **TO OPERATE:** Turn on the grain and "let 'er go." It is a scale and should be balanced occasionally. Your grain may not be in No. 1 condition and you may elevate very irregular, but you can't fool the NATIONAL.

The simplicity of the NATIONAL, together with our long experience in the manufacture of automatic scales, enables us to offer this high-class machine at a surprisingly low figure. It is sold on approval.

ADDRESS

THE NATIONAL AUTOMATIC SCALE COMPANY
215 E. Douglas St., BLOOMINGTON, ILL.

CONSTANT MACHINERY

IS WHAT YOU WANT

THE SAFETY MAN LIFT

has roller bearings, which makes it easily operated. The improved brakes and safety catch prevent accidents. The adjustable counterweights and springs make it all that could be desired. Buy ours; it pays.

THE B. S. C. CHAIN FEEDER AND DRAG

for feeding elevator boots and shellers, any capacity, any distance, automatically. Handles all kinds of grain without waste or mixing.

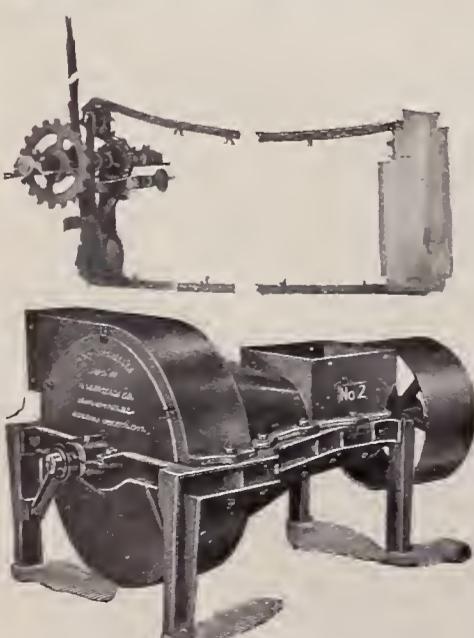
The ONLY WAY to feed a sheller.

THE U. S. CORN SHELLER

Patented Oct. 17, '05.

No pit or lower hopper. Cheapest installed. Quickest repaired. Our new Screw Adjustment can be used while sheller is full of corn and running. Shells clean, saves cobs. TRY IT.

Write for our catalog or you may miss something good



B. S. CONSTANT CO., Bloomington, Ill.

GURNEY Standard Scales

The great majority of the elevators throughout the Canadian Northwest are equipped with Gurney Scales.

Also found in terminal elevators in Halifax, St. John, Quebec, Montreal, Sarnia, Midland, Fort William, and a recent order was for the complete scale equipment (ten 2,000-bushel hopper scales) for the Grand Trunk Pacific Railway elevator at Fort William.

Write us for Estimate on Your Scale Equipment for Delivery Either in Canada or United States

Scales of every description, including the best type of Automatic scales.

THE GURNEY SCALE CO.

Established 1856

Hamilton, Ont., Canada.

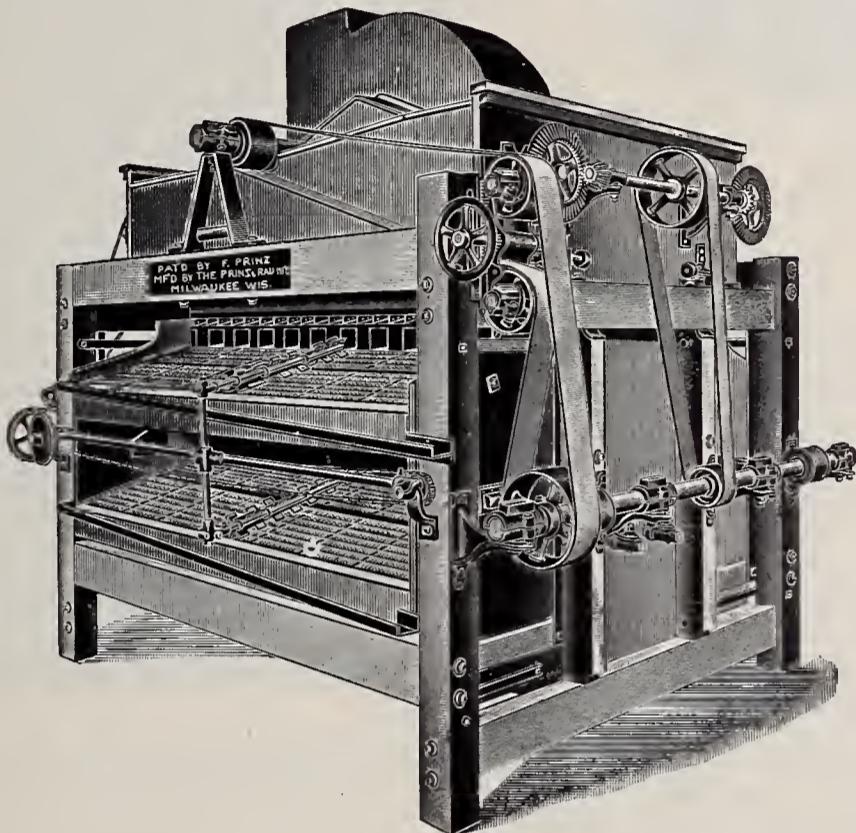
MONTREAL

WINNIPEG

CALGARY

VANCOUVER

FOR PERFECTLY CLEANING GRAIN PRINZ AUTOMATIC SEPARATORS HAVE NO EQUALS



They have many exclusive features that appeal to practical grain men.

Their **Perfect Automatic Traveling Sieve Cleaners** insure absolutely clean sieves at all times.

The **Sheet Steel Screens**, with seed screen at the head of each sieve, stand the hardest kind of service and still retain their shape.

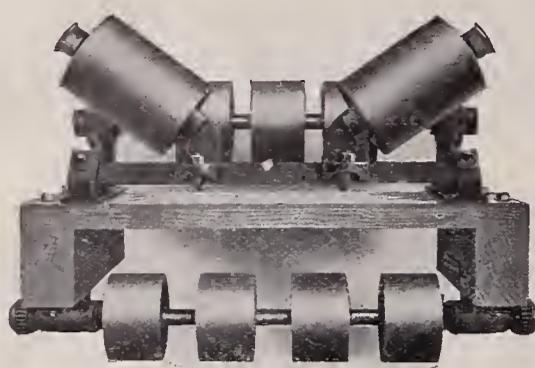
Perfect Ventilation is insured by a large fan, and a **Perfect Automatic Feeder** spreads the grain the entire width of sieve.

The most compact separators built, occupying the minimum floor space per bushel capacity.

Write for Descriptive Circulars

THE PRINZ & RAU MFG. CO.
MILWAUKEE, WIS.

Represented by W. G. Clark, 415A La Salle Ave., Chicago, Ill.; A. H. Kirk, 1-A Chamber of Commerce, Minneapolis, Minn.; F. E. Lehman, 124 Board of Trade, Kansas City, Mo.; C. H. Near, 757 Ellicott Square, Buffalo, N. Y.; M. D. Beardslee, 106 Piquette Ave., Detroit, Mich. European Representatives, Ingenieur Bureau, Prins Mauritsplein, La, The Hague Holland.



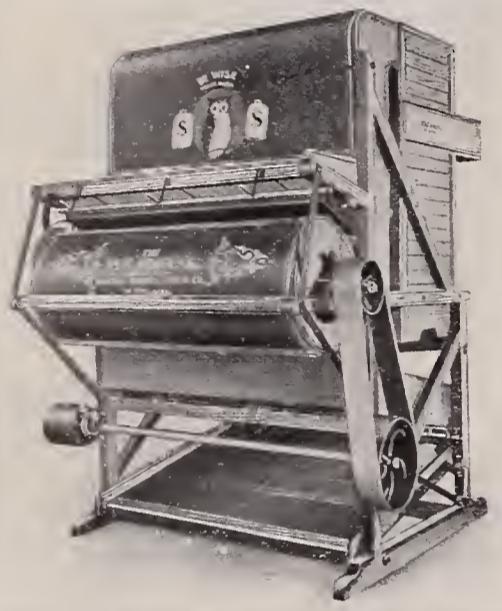
Improved Belt Conveyor

Carries all kinds of grain and mill products in package or bulk. Gradual, uniform curve of belt secured without complicated parts. Bearings thoroughly lubricated and have adjustment for taking up wear. Tripper substantial and reliable. Entire system economical and satisfactory—nothing to get out of order.

We manufacture a complete line of Elevating, Conveying and Power-Transmitting Machinery. Headquarters for supplies.

H. W. Caldwell & Son Co.
Chicago, Western Ave., 17th-18th Sts.

NEW YORK, Fulton Bldg., Hudson Terminal, 50 Church Street



The New Process Dustless Elevator and Warehouse Cleaner

FOSTON MANUFACTURING CO.

ST. PAUL, MINNESOTA

Builders of ELEVATOR and MILL SEPARATOR MACHINERY

Our New Process Cleaner and Separator

is a thorough, complete and successful machine, built for practical use and to meet the conditions as they are found today.

It embodies new and exclusive features found on no other cleaner in the market, the most important of which are fully covered by our patents.

Our machines are specially adapted for separating wheat, oats and different kinds of mixed grain. Write for Special Catalogue.

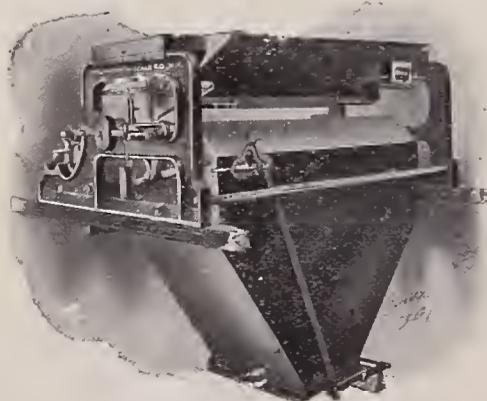
Another Richardson Record!

Richardson Weights Beat State Scale Weights!

SEE HERE

LONE TREE, N. D.
In regard to the Richardson Scale in use by us the past season, wish to say that we have shipped 75,000 bushels of grain over it and no fault to find. We have cars on which the Richardson and the Minnesota State Weighmaster agreed to within ten pounds, which shows that the Weighmaster was "nearly correct." We could not run our elevator without a Richardson and feel that we are doing ourselves justice. It gives no more trouble than a grain spout."

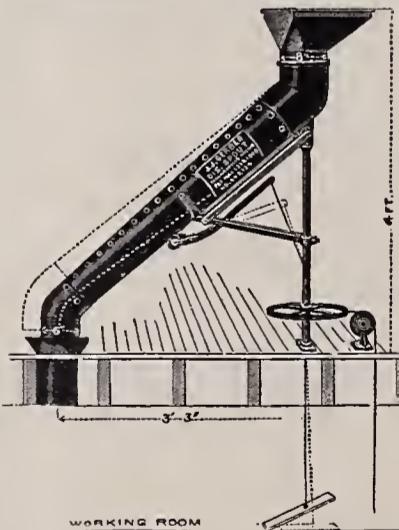
LONE TREE FARMERS' ELEVATOR CO.



You Cannot Make a Mistake with This Scale

Richardson Scale Company
Automatic Weighing Machinery

2 Park Row, New York
122 Monroe St., Chicago 413 Third St. S., Minneapolis



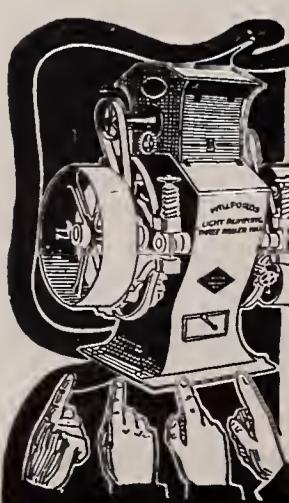
Good Spouts Reasonable Prices

That is what you get when you buy the

Gerber Improved No. 2 Distributing Spout

Will prevent mixing of grain. Can be operated from working floor. I make a specialty of elevator and mill spouting. For particulars write

J. J. Gerber, MINNEAPOLIS MINNESOTA



4 GOOD POINTERS

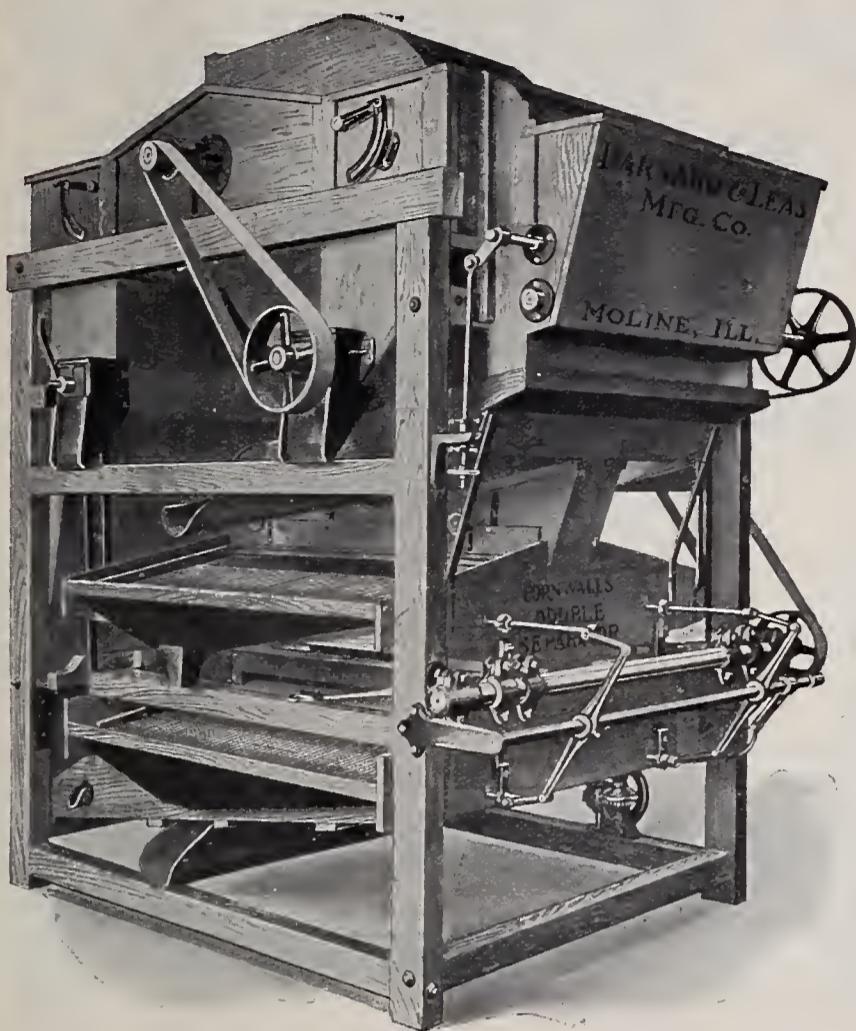
ON THE
Willford Three-Roller Feed Mill.

- (1) It is Easy to Handle.
- (2) It is Strong and Durable, but Simple.
- (3) It will Grind the Most Feed with the Least Power.
- (4) It can Always be Relied Upon.

Write for Circulars and Prices.

WILLFORD MANUFACTURING CO.,
303 3d St. South, - MINNEAPOLIS, MINN.

CORNWALL'S DOUBLE SEPARATOR



¶ The latest and best elevator and warehouse separator on the market.

¶ Will clean all kinds of grain and seeds.

¶ Has both kinds of sieving motion—sieves with their motion in line with the travel of the grain for removing straw and other coarse impurities and sieves on which the grain travels across the line of motion for making very close separations.

¶ It removes the fine sand and seed at the head of the sieve.

¶ Our sieve cleaners clean every inch of the sieves several times a minute. They work under the sieves and consequently lift the trash out of the holes and cause it to tail over instead of assisting it to pass through with the grain.

¶ Both the air and sieve separations are at all times under the complete control of the operator.

¶ Every sieve is at all times in plain sight and can be removed easily and quickly without disturbing any other part of the machine.

¶ Other features described in our latest circular.

¶ We also make a full and complete line of Feed Mills, Corn Shellers and Cleaners and furnish Elevator Supplies of all kinds.

Barnard & Leas Mfg. Company

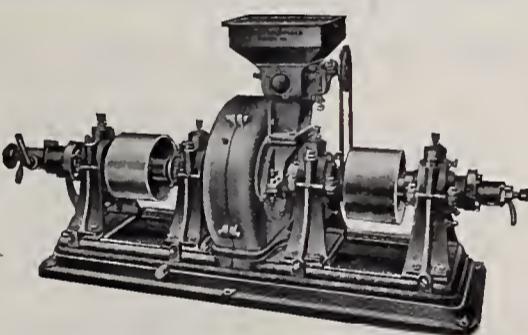
Builders of Elevator Machinery and Supplies

MOLINE, ILL.

GEO. J. NOTH, Manager Chicago Office

Tel. Harrison 5597 1330 Monadnock Block, Chicago, Ill.

Hundreds in
Use in
Elevators



Monarch Attrition Mills

are used in hundreds of elevators all over the country and are giving the best of results. They enable the elevator owner to convert his surplus power into money and establish a profitable side line. The product of a Monarch Mill satisfies the most exacting trade and its large capacity insures large profits. The Monarch is built in several sizes and we have just the mill for your power.

Send for Our New Catalogue

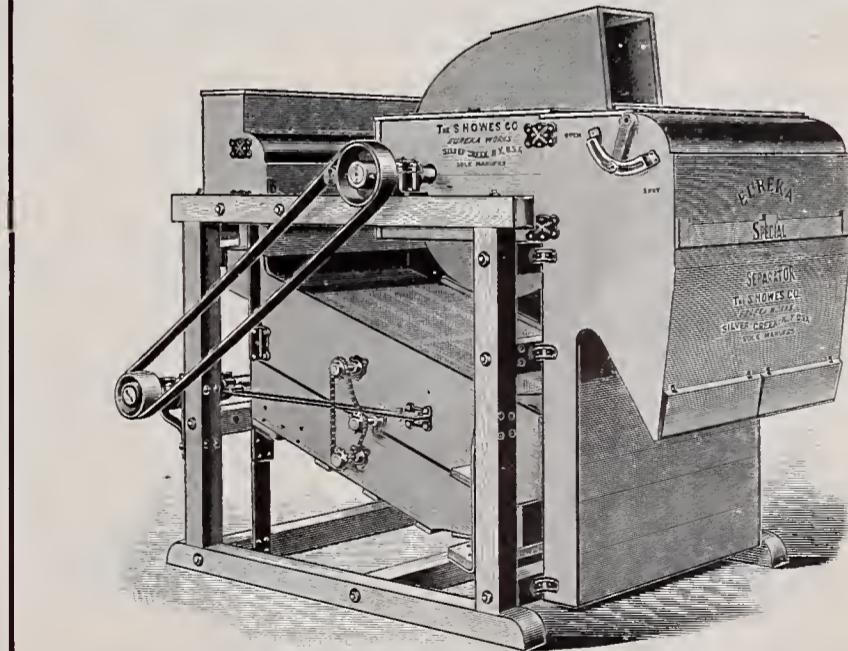
and learn all about the scientific grinding of feed. It treats the subject from a new standpoint and also tells why the Monarch has phosphor-bronze interchangeable bearings; cable-chain oilers; double movable base; safety spring; quick release; relief spring; special adjustable endless belt drives; hammered steel shafting; ball bearings and other improvements that are essential in the construction of a mill—durability, capacity, etc.

Mention amount and kind of power you expect
to use for operating a mill

SPROUT, WALDRON & COMPANY
John Williams Taylor, Southwestern Agent,
491 Pacific Ave., DALLAS, TEXAS
Northwestern Branch, 301 Corn Exchange Bldg.,
MINNEAPOLIS, MINN., C. H. Mohr, Mgr.

Box 320, Muncy, Pa.

THE "EUREKA" Combined Grain Cleaner



This machine cleans all kinds of grain without changing the screens, by simply turning a lever.

Most desirable separator for country receiving elevators.
Write for full particulars and prices.

THE S. HOWES COMPANY

"Eureka" Works

SILVER CREEK, N. Y.

REPRESENTATIVES:

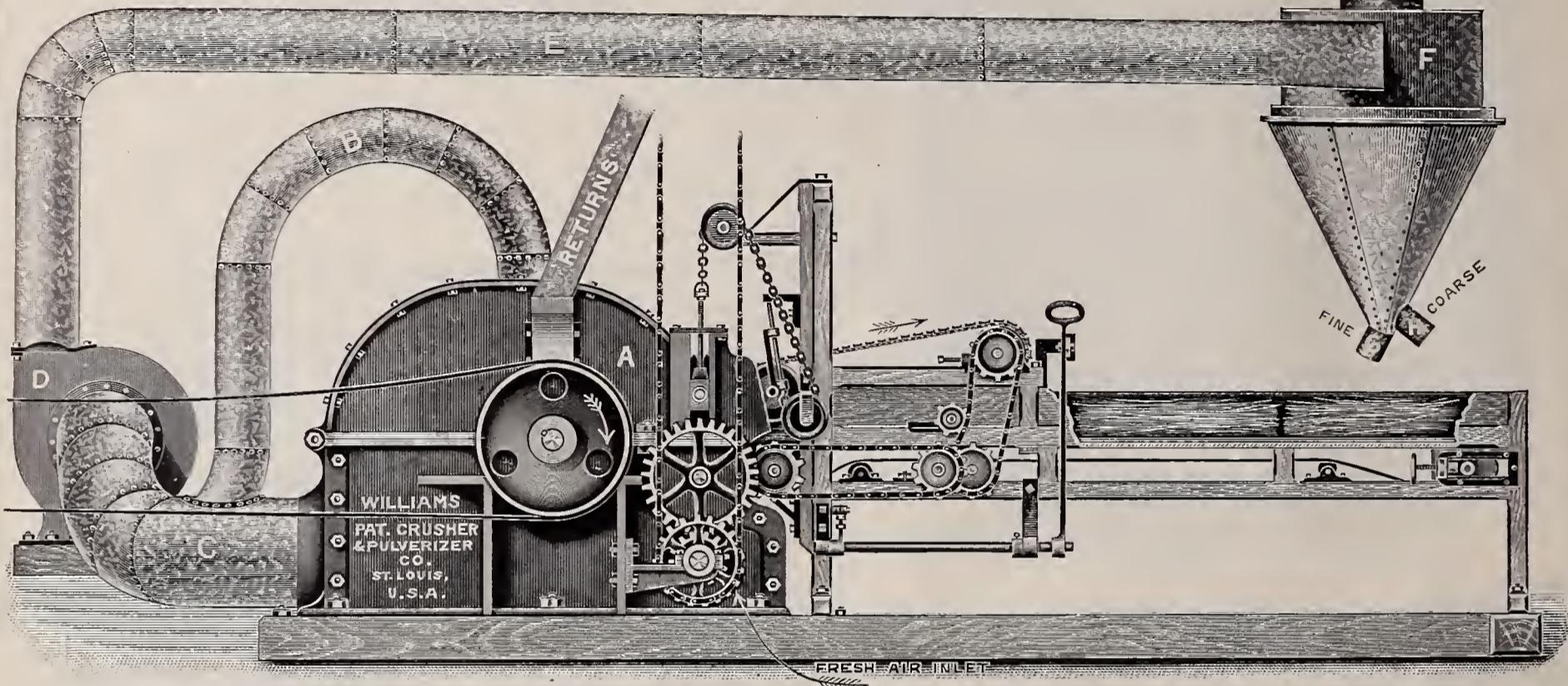
Indianapolis, Ind.	.....	J. N. Bacon, Spencer House
Louisville, Ky.	.....	E. R. Watson
Kansas City, Mo.	.....	J. Q. Smythe, Hotel Savoy
Spokane, Wash.	.....	Syphers Machinery Co.
Wichita, Kan.	.....	P. H. Pelkey Construction Co.
Gap Mills, W. Va.	.....	W. M. Mentz
Minneapolis, Minn.	.....	W. E. Sherer



WILLIAMS PATENT COMBINED HAY AND STRAW CUTTER SHREDDER AND GRINDER

Made in 6 Sizes

50 Successful Plants in Daily Operation



THE ONLY VERSATILE FEED GRINDER EVER PRODUCED

They will reduce EAR CORN with the HUSK on.
They will reduce ALFALFA HAY from the BALE or from the STACKS.
They will reduce ALFALFA HAY and EAR CORN together.
They will reduce ALFALFA HAY and SHELLED CORN together.
They will reduce ALFALFA HAY and OATS together.
They will reduce ALFALFA HAY and FODDER OF ALL KINDS, with the CORN on.
They will reduce ALFALFA HAY and PEA VINES.
They will reduce EAR CORN ALONE or SHELLED CORN ALONE.
They will reduce OATS ALONE.
They will reduce ALFALFA HAY and two other kinds of CEREALS at the same time, as each machine has three separate feeding places.

We have a corps of competent milling engineers in the field making estimates and taking contracts for the installation of complete alfalfa meal plants, from the stump up.

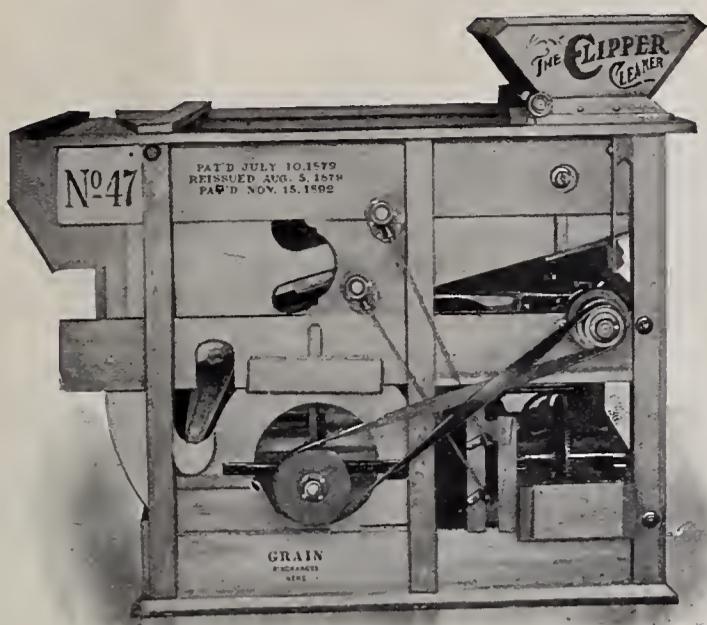
*For Further Information
Write for BULLETIN No. 7*

They will reduce ANY FORAGE material or CEREAL, together or separately.
They will reduce GREEN CORN from the field.
They will reduce CLOVER HAY, TIMOTHY or ANY KIND OF STRAW.
They are CUTTERS when desired, GRINDERS when desired and SHREDDERS when desired.
They are COB CRUSHERS when desired.
They will reduce COARSE OR FINE by changing cages.
They will reduce OAT HULLS, RICE HULLS, FLAX SHIVES or any other FOOD MATERIAL.
They produce two grades of goods AT THE SAME TIME, coarse or fine BY OUR COMBINED SYSTEM OF COLLECTING AND SEPARATING.
They WILL GIVE DOUBLE THE CAPACITY FOR THE POWER EXPENDED AND COST FOR RE-PAIRS OF ANY KNOWN GRINDER ON EARTH.

Write for Catalog of the Noxon Automatic Hay, Meal and All Around Feeder

Southwestern Representative: A. G. Olds, Care Manhattan Hotel, Wichita, Kan.
Northwestern Representative: J. J. Ross Mill Furnishing Co., Portland, Ore.
Pacific Coast Representative: O. J. Williams, 428 Monadnock Bldg., San Francisco, Cal.

THE WILLIAMS PATENT CRUSHER & PULVERIZER COMPANY
ST. LOUIS, MO., U. S. A.



is unequaled for handling seeds or grain in local elevators. This machine has Traveling Brushes on the screens, which enables you to keep it working to its full screen capacity all the time. It is very light running, strongly built, easily installed and simple in operation. We guarantee this Cleaner to give perfect satisfaction on clover seed, timothy or any kind of grain, and it can be operated with one-fourth the expense for power of any suction cleaner on the market. It will not require over one-half of one horsepower on clover or any kind of seed, nor over one horsepower on grain. If you are looking for a first-class, up-to-date cleaner of moderate capacity, we would be glad to send you catalog and give prices and particulars upon request.

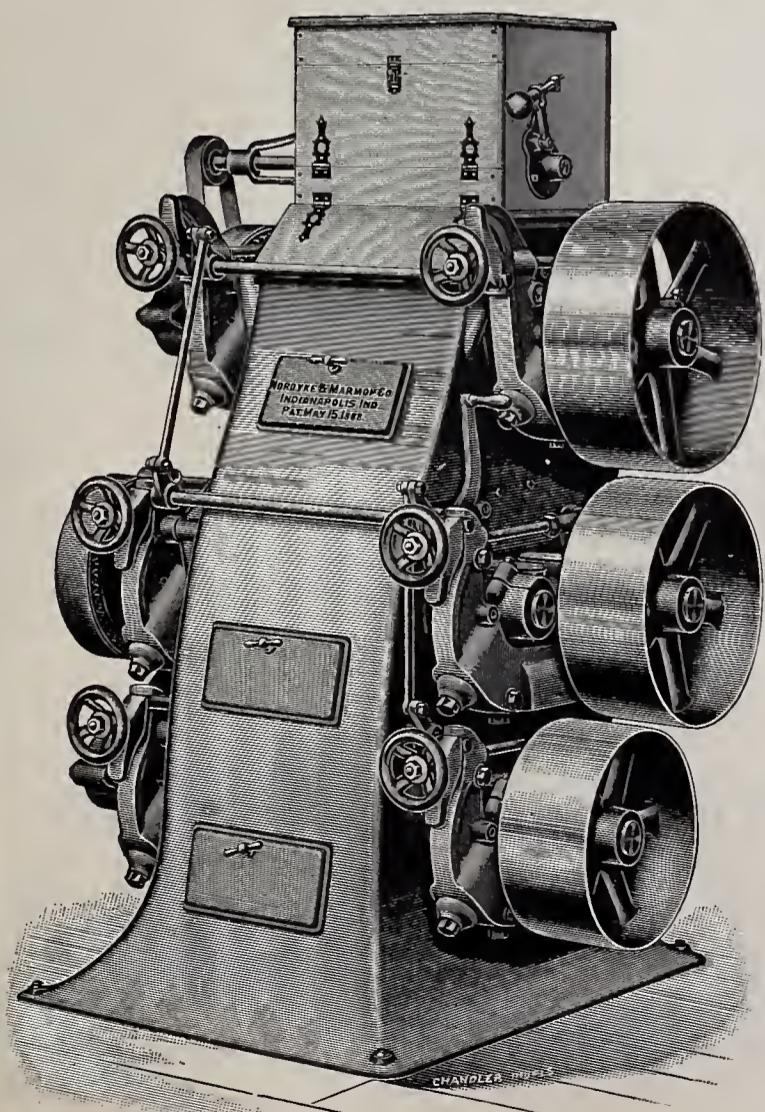
The No. 47

Clipper Cleaner

is unequaled for handling seeds or grain in local elevators. This machine has Traveling Brushes on the screens, which enables you to keep it working to its full screen capacity all the time. It is very light running, strongly built, easily installed and simple in operation. We guarantee this Cleaner to give perfect satisfaction on clover seed, timothy or any kind of grain, and it can be

operated with one-fourth the expense for power of any suction cleaner on the market. It will not require over one-half of one horsepower on clover or any kind of seed, nor over one horsepower on grain. If you are looking for a first-class, up-to-date cleaner of moderate capacity, we would be glad to send you catalog and give prices and particulars upon request.

A. T. FERRELL & CO., Saginaw, W. S., Mich.



The N. & M. Co.

THREE-PAIR-HIGH SIX-ROLLER MILL

The most substantial, most economical in cost of maintenance. Has great capacity and requires comparatively small power. The only Six-Roller Mill with drive belts properly arranged to place the belt strain on bottom of bearings, where it belongs. It is not the cheapest mill in first cost, but it is by long odds the cheapest in the long run. It is without question the best roller feed mill on the market. Feed grinding pays best when you have a mill which will do perfectly any kind of grinding required and stand up under hard work without breakages and delays.

Send for Catalogue

ELEVATOR SUPPLIES

We carry a complete stock of Heads and Boots. Elevator Buckets and other Elevator Supplies. All orders are given the very best of attention.

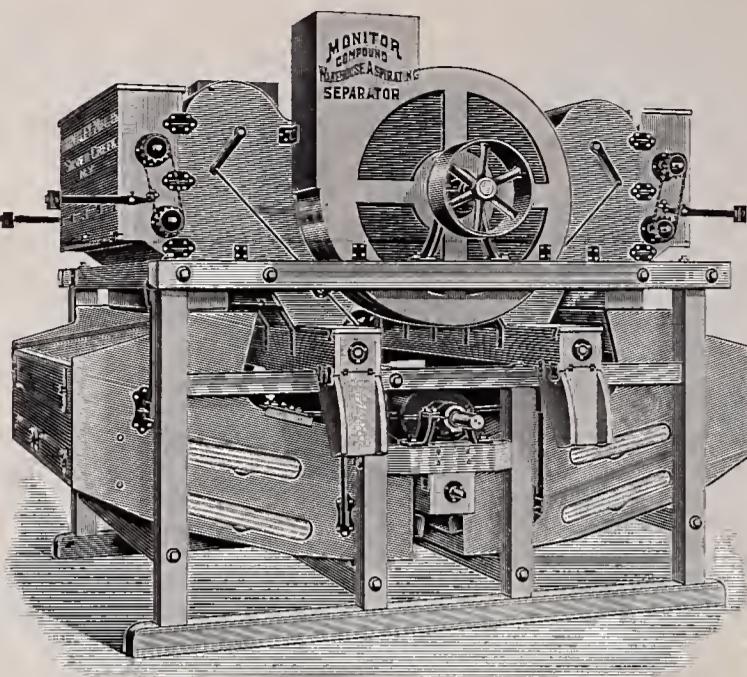
Nordyke & Marmon Company

America's Leading Flour Mill Builders

Established 1851

INDIANAPOLIS, IND.

The Monitor Compound Elevator Aspirating Separator (Patented)



The Latest Improve- ment In Elevator Cleaning Machinery

To the elevator operator looking for a cleaner with large capacity and capable of performing perfect air and sieve separations this new Monitor offers many advantages that no other cleaners possess. This machine has

COMPOUND DRIVE—The two shoes are of exactly the same weight.

AUTOMATIC FORCE FEEDER—New in design—our own exclusive production.

PATENTED AIR EQUALIZING ATTACHMENT—Insuring a wide range of air cleaning results.

THREE SCREEN SEPARATIONS—This equipment enables the operator to handle various kinds of work.

DISC OILING ECCENTRICS—The greatest improvement of recent years in grain cleaner building.

DEEP RESERVOIR RING OILERS—These used for both the main shafts.

AUTOMATIC SIEVE CLEANERS—Of the well known Monitor type.

GENERAL CONSTRUCTION—Guaranteed perfect in every detail.

RESULTS—Extraordinary screen and air separations—saving in floor space, power, care and attention.

CAPACITIES—1000 to 7000 bushels per hour.

THE MONITOR LINE

of grain and seed cleaning and grading machinery, designed for elevator service, constitutes the most extensive assortment of entirely successful machinery of this character manufactured in the United States.

Huntley Manufacturing Company

Silver Creek, New York

OUR AGENTS

CHICAGO, ILL.—F. M. Smith, 302 Traders Building.

ST. LOUIS, MO.—S. J. McTiernan, 127 Chamber of Commerce.

KANSAS CITY, MO.—H. C. Draver, 10 Board of Trade.

PORTLAND, ORE.—C. J. Groat, 717 East Burnside Street.

HOUSTON, TEXAS.—The D. J. Hayes Co.

MINNEAPOLIS, MINN.—A. F. Shuler, 316 Fourth Avenue, South.

JACKSON, MICH.—A. H. Smith, 206 Lansing Avenue

AKRON, O.—A. S. Garman.

OWEGO, N. Y.—J. H. Foote.

THE AMERICAN ELEVATOR AND GRAIN TRADE.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY
(INCORPORATED).

VOL. XXVII.

CHICAGO, ILLINOIS, MAY 15, 1909.

No. 11. { ONE DOLLAR PER ANNUM,
SINGLE COPY, TEN CENTS.

WHEELER ELEVATOR.

The engraving here-
with is a reproduction
of a wash-drawing of a
new elevator in course
of erection for the
Wheeler Elevator Company,
721 Chamber of
Commerce Building,
Buffalo, of which A. J.
Wheeler is president
and Geo. E. Pierce,
manager.

The house is to be
erected on Buffalo River
at Ganson Street, giving
it water frontage as
well as siding connec-
tions with the Buffalo
Creek Railroad, a belt
line road that connects
the elevator with all
railway lines entering
the city.

The elevator rests on
1,400 piles each about
45 ft. long, driven to
rock. The footings and
story under bins are of
reinforced concrete
throughout. The lower
floor is 7 ft. above mean
water level, and bottom
of bins 15 ft. above the
lower floor. All bins
have hopper bottoms
having 45 degrees slope
to outlet.

The bins are built of
reinforced concrete with
8 in. walls the entire
height. Bin walls are
reinforced with hori-
zontal steel hoops
spaced 12 in. apart and
with vertical rods
spaced about 3 ft. apart.
The size of steel hoops
is graduated from
bottom to top to take the
full strain due to grain
pressure.

The marine tower and
working house is of

steel frame construc-
tion covered with gal-
vanized corrugated
steel. That part of bins
extending beyond the
steel enclosure is roofed
with concrete and pitch
and gravel roof.

The storage capacity
will be 700,000 bushels,
divided into 33 bins
ranging from 4,000
bushels to 36,000 bush-
els each.

The plant will be
equipped with a marine
leg, two loft legs, belt
conveyors, cleaning ma-
chinery, scales, car puller,
car shovels, car spout,
dock spout, and wagon
loading spouts. This
equipment will be
so arranged that grain
can be received either
by boats or cars and
shipped either by canal
boats, cars, or delivered
to wagons for local
trade. All elevator legs,
scales, garners, etc., are
to be of steel construc-
tion, and no wood or
combustible material
used in any part. The
handling capacity of
the legs and conveyors
will be 15,000 and 18,-
000 bushels per hour.

The plant will be
driven by electricity
generated at Niagara
Falls. In the lower
story is located a switch-
room from which all
motors are controlled.

There will be a com-
plete intercommunicat-
ing telephone system
and the usual equip-
ment of call bells and
signals.

In the general design
the plant is so arranged
as to handle grain with
a small number of men



ELEVATOR IN COURSE OF CONSTRUCTION AT BUFFALO FOR THE WHEELER ELEVATOR COMPANY.
Monarch Engineering Company, Buffalo, Engineers and Contractors.

and with the minimum amount of power, and it will be completed to handle next fall's business (1909).

The Monarch Engineering Co., Chamber of Commerce Bldg., Buffalo, N. Y., have general contract for designing, building and equipping the plant ready for operation.

[For the "American Elevator and Grain Trade."]

NASHVILLE'S NEW GRAIN EXCHANGE.

BY S. W. STRONG.

Sec'y Illinois Grain Dealers' Association.

The grain dealers of the city of Nashville, Tennessee, a few months ago organized the Nashville Grain Exchange, for the betterment of the general trade at that market, and for the further purpose of adopting new and modern methods of weighing, inspecting, drying and generally caring for grain consigned to that city. Having gotten their Exchange into working order, an invitation was extended through its secretary to the Illinois Grain Dealers' Association, asking that a committee be sent there to inspect the facilities afforded to the trade for the transaction of all dealings in grain.

In response to this invitation a committee of the officers of the Illinois Grain Dealers' Association visited Nashville on April 13th and 14th. They were met at Nashville by the officers and members of the Nashville Grain Exchange, and afforded every opportunity to investigate thoroughly every part of the organization, its constitution and by-laws and the rules of the Exchange, as well as the departments of weighing and inspection.

On Tuesday afternoon, April 13, by the courtesy of the N., C. & St. L. R. Co., a special train was furnished, under the direction of Wm. L. Nichol, Commercial Agent of the road, for the use of the visitors and members of the Exchange; and twenty-three warehouses and nineteen elevators were visited and inspected by a party of about forty gentlemen, including many of the members of the Exchange. The party were shown through each elevator or warehouse, where are installed late and up-to-date machinery for weighing, sacking, drying and handling in every necessary manner all kinds of grain.

On Wednesday morning in automobiles the party were taken to visit the Hermitage Elevator on the T. C. R. R. lines, which has a capacity of 500,000 bushels and is equipped with every known device for handling grain rapidly, without loss and correctly. Twelve cars can be unloaded at once. There are 179 bins in the house, all with steel hopper bottoms. While there are elevators which are larger than the Hermitage, there is none in the country which is more completely furnished.

The rules of the Exchange provide for the inspection and weighing of all grain entering or leaving Nashville by duly appointed and sworn officers, who are responsible to the Exchange only and whose duty it is to carefully and correctly inspect and weigh in and out all grain; and to keep an exact record of their work, reporting by certificate on each car load the grade, weight, and condition of the car upon arrival. Back of all the rules, regulations and apparatus of the Exchange was evident the hearty co-operation of every individual member of the organization, who are banded together with the determination to have the Nashville market second to none for exact and careful management and honest dealing, with sufficient capacity for all receipts, and a reliability of members, which guarantees to every person who sells or consigns grain to Nashville a satisfactory deal.

Aside from exhibiting to the visitors the new and modern methods of the Exchange, true to the well-known reputation of Southern hospitality, the Northerners were taken to view places of historic interest, beautiful homes, palatial business buildings, magnificent parks, many institutions of learning, and verdant fields where wheat was four to six inches high.

On Wednesday evening the members of the Exchange tendered to the visitors a banquet at the Maxwell House, which was attended by forty-seven gentlemen identified with the grain trade of Nashville.

Vice President C. E. Rose of the Exchange welcomed the visitors to the South, and was replied to by a member of the party. Subjects discussed were:

"The kind of a grain market Illinois shippers desire"; "The Illinois Grain Dealers' Association: Its work and accomplishments"; "Trade relations North and South"; "Nashville as a primary grain market"; "The growth of the grain trade in Nashville"; and "Tennessee as an agricultural state." The banquet was ended by the announcement of "train time"; and the visitors took leave of the company to board the N. C. & St. L. R. for Memphis. The occasion will long be remembered by those present.

Without having given any notice of the time of their arrival, the committee was received cordially, every assistance being afforded for investigation; and they were delightfully entertained during their stay. They are entirely satisfied that the Nashville Grain Exchange has the facilities, the ability, the responsibility and the probity of character to render due and true account of all business consigned to their care.

The committee received fourteen new memberships for the Association, and returned well pleased with the prospective benefits which will accrue to the organization of Illinois shippers from their efforts.

F. P. MANCHESTER.

F. P. Manchester, who succeeds E. J. McVann as secretary and executive officer of the Omaha Grain



F. P. MANCHESTER.

Exchange, is young in years and appearance, but he has had a railroad and business experience that will be of substantial benefit to the Exchange he is now serving.

He entered into the railroad business in 1902 as an employee of the traffic department of the Wabash R. R. Co., at Denver, from which office he went to the U. P. R. R. Co. at Denver in the same department (1903.) In 1904 he was advanced by the same company to the important position of general agent at the city of Pueblo. Two years later he resigned to go into the mercantile business at Denver.

The Springfield Journal of April 26, says: "The elevator war at Palmer, Ill., took a new tack Tuesday night, when the approach to the Twist Brothers' elevator was sawed away. The Farmers' Elevator Company has purchased a tract of ground adjoining the Twist Elevator site and it is contended by the Farmers' Grain Company that the approach to the Twist Elevator is on ground owned by the company. Several weeks ago the Twists inaugurated a war against the Farmers' Grain Company, which as yet has not built an elevator, by announcing that they would pay three cents a bushel more than the market price of grain to any one not a member or stockholder of the Farmers' Grain Company, the purpose of this statement being to prevent the stock being taken. What the Twists will do in regard to their drive being destroyed they do not say."

[For the "American Elevator and Grain Trade."]

WANTED—A RAILROAD NAPOLEON.

BY L. C. BREED.

Doubtless most if not all the suggestions being offered at St. Louis having reference to the enlargement of the facilities for handling freight, require years of time and certainly the expenditure of an immense sum of money. It would, however, seem desirable to inquire whether or no more service could be performed with the facilities now existing.

Broadly considered, two matters of paramount importance demand attention. First, is the right kind of a man in charge of the Terminal Company's business, and if so, whether or no he has not too much to attend to in attempting to handle both the traffic and financial affairs of the company? The second is, whether or no said manager has sufficient authority, or, in other words, has his authority full reach? Without attempting to strictly answer these questions, the following suggestions are offered:

What seems to be imperatively needed is what might be termed a "Railroad Napoleon." The bare mention of the greatest name in modern military history is almost sufficient to indicate the style of railroad man required for this great task, since every one is more or less familiar with his manifold abilities and characteristics, among which may be named the following: (1) Great physical and mental powers; (2) indifference to personal comfort; (3) immense administration faculties; (4) careful personal attention to details; (5) thorough familiarity with the geography, or physical helps or hindrances, of the scene of his proposed operations; (6) wonderful power of selecting the right men for his lieutenants; (7) celerity of movement in case of both the troops and the supply trains; and (8) capacity for giving orders at one and the same time, covering various departments and interests. All these qualifications are needed on the part of the railroad man who should be placed in charge of the terminal system of this great railroad centre.

To secure such a man, a large salary should be offered him—say \$25,000 per annum and an engagement made for term of years. This, however, is not all. To obtain the full benefit from making a man the terminal transportation general he must have a general's authority—be endowed with the undisputed right to command.

It is assumed that this ideal railroad general is to be constantly among his troops—now in St. Louis, then at East St. Louis, in the day and often in the night. Those who are familiar with lives of great soldiers are aware that their acts were governed by the emergencies as they arose. Why should not this be the case in transportation blockades as well as in military exigencies? At the bottom is the necessity of doing the right thing at the right time—the capacity to secure to the farthest limit what men and engines are capable of performing.

This great task cannot properly be handled by an office general and never will be; what is required is a general in the yards.

The railroad companies which under another name comprise the Terminal Company can engage such a railroad man and can endow him with unlimited authority; if they so elect, they can do so at once. Conditions at present are not as bad as is sometimes the case, and this to some extent is owing to the fact that during the past winter there has been no snow or ice to contend with.

There is great waste of time and money—railroad time and money—constantly going on through inefficiency, neglect and carelessness. The annual expense of this railroad general would soon be wiped out—probably a year's salary in a few months. To this should be added the immense advantage to be gained by merchants and manufacturers, which would be arrived at through the use of existing facilities to their fullest extent, which could be secured by better personal supervision; provided, as has been stated, the right man and absolute authority over everybody and everything connected with the terminal system were the factors in the equation.

There is no denying that the situation here is extremely complicated, or that the existing facilities

are inadequate, and with the constant growth of the city they will steadily become worse.* As compared with other cities situated on rivers, it is in a far more desperate condition. Cincinnati, for instance, with much less business, has six railroad bridges. At the same time, while this problem is being solved, no one will deny that the betterment of present conditions should still receive, as indeed it has been receiving, earnest attention on the part of all persons interested in the welfare, prosperity and growth of this grand old city. One cause, however, of considerable relief in congestion at this centre is the use of the Thebes Bridge, over which pass say one thousand cars in 24 hours; but, incidentally, we are also relieved of some business.

The duties of the present manager of the Terminal System may be such as to render it impossible to give the traffic department the attention that is required, especially while legislative action, both on the part of the local authorities and national Government is directed against the company.

The making of the Terminal Company a public carrier to the extent that is now the case, is by some shippers considered an impediment to better service, since, as they claim, all that should be required of it is transfer or switching. It should not be expected to provide terminal yards for freight delivery. Its business should be confined specifically to the movement of freight from one side of the river to the other, at the least possible expense and with the greatest possible dispatch.

*There are 600 miles of terminal tracks at East St. Louis and 200 miles in St. Louis. Fourteen railroads are the joint owners of the two bridges and Wiggins' Ferry and trackage under the name of The St. Louis Terminal Association.

ILLINOIS ASSOCIATION MEETING.

A joint meeting was held at Peoria, on April 30, of a committee from the Peoria Board of Trade and the Illinois Grain Dealers' Association to make arrangements for the 16th annual convention of the Association at the National Hotel, Peoria, on June 15 and 16 next.

The committee from the Peoria Board of Trade was composed of A. G. Tyng, Chairman; Erastus Roberts and J. H. Ridge; and from the Association, President E. M. Wayne, of Delavan and Secretary S. W. Strong of Pontiac.

A general program was adopted, which will be published and distributed at an early date, which will be very interesting to the country shipper. A particular feature will be the address of Wm. R. Bach, attorney and manager of the claims department of the Association, whose subject will be, "The right of grain shippers to recover for loss of weight in transit, loss on grain on account of a decline in market value, where delivery has been delayed, and loss on grain on account of deterioration of grade where delivery has been unreasonably delayed." Every grain shipper in the state of Illinois should hear this address, by which he may learn exactly how to proceed where losses occur on shipments of grain. Another feature will be an address by Dr. Hopkins, N. W. University, Illinois, on "Soils Investigations and Crop Experiment Work."

The steamer *David Swain*, chartered by the U. S. Government to carry eight hundred people, has been contracted with to take the entire company of grain dealers and their ladies on a hundred-mile ride on the Illinois River on Wednesday afternoon, June 16. There will be special entertainment provided for ladies. On Tuesday evening, June 15, there will be a general free-for-all discussion in a "Smoker" to be given in the assembly room of the hotel, where everybody will be privileged to talk about anything that appertains to the grain trade. At this session there will be music under the direction of C. S. Burdick, secretary of the Commercial Club of Peoria.

Those desiring to attend the convention should make early reservation of rooms for the occasion, as this will probably be the most largely attended convention in the history of the Association.

There has already developed considerable opposition to the new law in Washington making the state grain inspectors part of the Railroad Commis-

sion's duties to inspect the grain in cars and weigh it before it is turned over to the warehouse companies. There is some talk that the companies may disregard the law and purchase grain under the stipulation that they may do their own weighing and testing. They object to weighing in cars, as the method is not thought to be accurate. It is believed that this law may tend to send the grain to Portland, where the state does not take a hand in the weighing and inspection of grain.

E. G. COOL.

E. G. Cool, well-known to the Iowa grain trade, is now representing the firm of Philip H. Schiffelin & Co. of Chicago, in Iowa, southern Minnesota, and South Dakota. Mr. Cool is an Iowa man and grew to manhood on a farm in Madison County, with the exception of four years spent on his mother's claim in Nebraska, where he herded cattle in the summer and walked four miles twice a day to and from school in winter. He graduated from a leading business college in Iowa, spent a year as bookkeeper on the famous Brookmont Farm in Sac County, the largest farm in Iowa, another year in the loan department of the State Bank of Laurens, Iowa; four years as bookkeeper for the elevator



E. G. COOL.

line of Wilson & De Wolf at Laurens, Iowa, meantime acting as private secretary also for Mr. De Wolf, one of the ablest grain men of Iowa. For the past five and a half years he has represented T. E. Wells & Co. in Iowa, where his personal integrity and his many fine traits of character have made him many warm friends among members of the grain trade. His wide and varied experience in the grain business especially qualify him for his present line of work, and this fact, coupled with his energy and conscientiousness, will make him a valuable acquisition to the estimable firm of Philip H. Schiffelin & Co.

THE LEITER DEAL.

The Patten episode in wheat has revived interest at the chronology of a former great corner period on the Chicago Board of Trade—the Leiter deal of 1898. At the opening of April, 1898, wheat for May delivery had been \$1.03 1/2; at the opening of May, \$1.17 1/2. On May 4 the price was \$1.24; May 5, \$1.37; May 6, \$1.50; May 7, \$1.65—an advance of 47 1/2 cents for that week. On Monday, May 9, the price was \$1.75, and Tuesday, the 10th, it reached \$1.85. On May 11 the price was \$1.73, the next day \$1.65, the next \$1.51, and the next, May 14, \$1.30.

The deal turned out disastrously, and on June 13, when wheat had collapsed to 75 cents, the elder Leiter announced that he would no longer assist his son Joseph. That ended the speculation; wheat shortly afterward sold at 65 3/4 cents a bushel.

[For the "American Elevator and Grain Trade."]
CONCERNING THE "NATURAL SHRINKAGE" OF GRAIN IN TRANSIT.

BY L. C. BREED.

In view of the fact that the claims departments of the principal railroads of the country are flooded with claims of every conceivable character, ranging in amount from a few dollars to thousands, and that a very large proportion of the same are of small value, it would appear that serious consideration of the matter might profitably be given to it by all classes of business men. The word profitably is used advisedly for two reasons: First: Because no claim is adjusted without consideration, and usually, also, more or less investigation, and if allowed, paid in turn; and these processes require time. Second. The railroad officials are becoming more *incredulous* and particular—they are requiring "to be shown."

The Grain Club of St. Louis, comprising most of the leading grain men of the Merchants' Exchange, has recently taken this matter up, and after a quite full discussion of one phase—that of shortage of grain—a resolution was offered for the purpose of getting the sense of the meeting, which resolution was adopted unanimously. The concensus of opinion of the members of the club present at the meeting was that no claim should be made on the railroads if the shortage does not exceed one-quarter of one per cent, but in case it exceeds that quantity, a claim would be put in for the entire shortage—i. e., without deducting one-half of one per cent where the shortage was that much or more.

In discussing this subject with a few members of the Exchange whose experience renders their opinions of value, since they are properly classed as experts in the grain trade, it is of interest to note the uniformity of their opinions.

Gilbert Sears, who has the management of the elevators of the C. H. Alber's Commission Company, states that in case of contract grain, the average "natural shrinkage" of grain in transit is one-quarter of one per cent.

J. F. Sullivan, superintendent of the elevators of the United Elevator & Grain Company, gives it as his opinion that this shrinkage will not exceed one-quarter of one per cent.

Roger P. Annan, the senior member of the firm of Annan, Burg & Company, one of the oldest grain commission merchants, said that in case of many cars the firm shipped each season, there was practically no shrinkage, and in other cases a shortage, which he attributed to faulty scales at the receiver's end of the route.

Manning W. Cochrane, of the Cochrane Grain Company, referring to a recent shipment of fifty cars of wheat from a local elevator, stated that some cars only shrank fifty and none of them over one hundred pounds. In his opinion, one-quarter of one per cent would be more than the average shrinkage in case of well coopered cars, and part of that even would be the escape of chaff in handling the grain in and out of the cars.

E. L. Waggoner stated, in recalling a shipment of 200,000 bushels of wheat from a single elevator to the same mill, the shrinkage did not average one-eighth of one per cent. As Mr. Waggoner is not at present actively engaged in the grain business, his testimony has the double value of long experience and of being unbiased by business interests.

S. A. Whitehead, of the Nanson Commission Company, stated that not long since the Company shipped 100,000 bushels wheat to a mill from the St. Louis market and no complaint was made with regard to weight.

Geo. W. Hill, secretary of the Mississippi Valley Elevator & Grain Company, gave it as his opinion that a shrinkage of over one-quarter of one per cent ought not to be looked for.

In past years, it used to be customary to allow one-half of one per cent for shortage in weight to cover contingencies in that direction.

It is proper to state that the parties whose views have been given above had reference to contract grain, shipped in "good order" cars and received in like condition. It was also remarked that weather conditions during the loading, transiting and unloading

of the grain exerted a slight effect respecting its weight.

As corn usually contains more moisture than wheat, it might be expected to show a somewhat larger percentage of shrinkage, but in the experience of the parties mentioned above, this was not found to be the case and in fact corn sometimes, as also does wheat, gains a little in weight from the absorption of moisture from the atmosphere. These

ILLINOIS CENTRAL ELEVATOR BURNED AT CHICAGO.

Illinois Central Elevator B, at the foot of South Water Street, Chicago, near the mouth of Chicago River, was destroyed by fire on April 29. During the progress of the fire two firemen were killed, having been caught and crushed under a falling wall; four other firemen and a newspaper reporter

house, water-barrels, and automatic journal alarm; screens on windows, and A. D. T. watch service. It was owned by the Illinois Central R. R. Co. and operated by the Central Elevator Co., controlled by Bartlett, Patten & Co.

Bartlett, Patten & Co. report that the house contained 395,000 bushels of wheat, 78,000 of corn, 245,000 of oats and 8,500 of barley. They estimate the loss on grain at \$700,000 and on building at \$500,000. The insurance on the grain was \$819,000. Some of the 500,000 bushels of grain in elevator "A" also was damaged by water.

The salvage grain was sold on May 4 to the Brooks Elevator Co., of Minneapolis, for \$90,200.

THE SHRINKAGE PROBLEM.

Much has been said of late about grain shrinkage. The subject is a popular topic for discussion. Railroad men, particularly, are interesting themselves in the matter. Committees consisting of claim agents and other officials have been appointed to determine how much natural loss actually takes place in handling and transporting a car of grain from point to point. Investigations of all kinds have been made, even including the following of a car of grain to different terminals and having the same load weighed, transferred, reweighed and retransferred at the different markets. But in spite of all no definite conclusion has been reached, and those most concerned in ascertaining the truth are wide apart in their opinions as to the amount a given quantity of grain will in handling lose in weight from natural causes.

Among those who have given the question consideration is Mr. J. S. Tustin, claim agent of the Missouri Pacific Railway Co. Mr. Tustin, at the Kansas grain dealers' recent convention, reviewed the results of his investigation of the subject (see "American Elevator and Grain Trade," February number, p. 429); and while he established the fact that shrinkage in weight occurs, yet the evidence presented by him was too uncertain and contradictory in character to be of much service in determin-



RUINS OF CENTRAL ELEVATOR B, CHICAGO.

observations, it is hardly necessary to state, are made from a practical, or commercial, and not a scientific standpoint.

STILL SEEKING CONTROL.

The farmers of Manitoba and the Canadian West are still trying to force that government into control, if not actual state of ownership, of all grain elevators in that country. Although the premiers of the Western Provinces rejected a similar but more far-reaching petition as beyond their powers and financially impracticable, on April 28 two petitions, one signed by 10,000 Manitoba farmers, and another from Saskatchewan, were presented to Sir Richard Cartwright at Ottawa, asking the government to assume control of all terminal and transfer elevators between Port Arthur and the Atlantic Coast.

Another petition in the form of a request for an amendment to the Manitoba Grain Act, was presented on April 27 to the same official by the Alberta grain interests. Their request embodied the following specifications:

(1) That proper grain shipping facilities should be provided at the port of Vancouver; (2) That there should be appointed a grain inspector for the provinces of Alberta and British Columbia, who has knowledge and experience in grading the cereals produced in these provinces; (3) That the Manitoba Grain Act be so amended in its application that any farmer or number of farmers wishing to put his or their grain through the elevators by sale or otherwise be enabled to get cars in the same proportion as though he or they loaded from platforms, and that the railways be obliged to keep a book for the purpose of recording their requests for cars.

As to the latter petition, Sir Richard Cartwright in reply said he fully recognized the great importance of the representations made and of doing everything possible to facilitate the opening of the Oriental markets as well as those of Europe which might be reached by the Tehuantepec Railway route. It was improbable that at this late period anything in the way of legislation could be accomplished this season, but whatever could be effected by order-in-council would be done.

On the first named petition a hearing was granted to Ontario millers nor has any announcement by the government been made as to its policy.

A mill to make paper from cotton stalks has been established at Cordele, Ga.



CENTRAL ELEVATOR B, CHICAGO, ON FIRE.

Courtesy "Chicago American."

of the structure, fully 500 feet, and was fast eating its way eastward. Firebrands fell down the grain legs to the bottom of the building and started new fires at the ground. It was several hours before the fire was gotten under control.

The elevator was a marine dock house with storage capacity of 2,000,000 bushels. Its construction was frame, all bins cribbed, independent brick walls to bin floor, metal-clad cupola; roof, metal on joisted supports. It had standpipe for fire protection, also

ing the amount of actual shrinkage to be expected in transporting grain. For example, included in his investigation papers was a printed slip showing the weights of two cars of corn as weighed at sixteen different points. Accompanying these cars in their pilgrimage were two weighing inspectors, one scale expert and a scale testing car. An examination of the report made by these men, however, would indicate errors in weighing or incorrect scales, rather than actual shrinkage which must have taken place

in handling the corn. For example: One of the cars increased in weight 50 pounds between the first and eleventh weighings, and yet a shrinkage is shown between the first and eighth handling of 800 pounds. Between the eighth and fourteenth weighings the grain increased in weight 500 pounds, while between the fourteenth and fifteenth weighings a loss of 610 pounds is indicated, while the sixteenth weighing showed an increase of 260 pounds.

Mr. F. E. Marshall, of the Philadelphia Commercial Exchange, also has contributed to the literature of shrinkages (see October number of "American Elevator and Grain Trade," p. 200). But he, too, failed to throw any additional light on this mooted question. His contribution, in many respects, indicates experience and opinions quite at variance with the results of weighings shown by the records of weighing departments and with the experiences as told by many elevator men. For instance: Mr. Marshall in his paper read at the Grain Dealers' National Association convention said:

"I do not find in that lexicon (Standard Dictionary) any definition of the term 'natural shrinkage,' as used by claim agents; but if it were there, I suppose it would be defined as 'something imaginary.'"

Nevertheless, anyone who, in good faith, says that no natural shrinkage takes place in the process of handling grain is not conversant with the facts. There is a certain diminution in weight, which takes place in the process of handling grain to and from cars, vessels or elevator bins, that cannot be avoided. The amount of such shrinkage depends upon various conditions which we shall enumerate a little further on. The operation of turning grain over, whether the purpose is to keep it in condition or to transport it from point to point, will invariably result in the loss of weight. That this truth has not escaped the observation of practical grain handlers is evidenced by the fact that elevators at certain markets still dock incoming weights to prevent subsequent loss from that very cause; and at one point at least these deductions vary according to the quality and condition of the grain.

In referring to the effect of atmospheric and climatic changes on the weights of grain, Mr. Marshall said:

"If there is a slight loss at any time, which I do not intend to concede," etc., etc.

Now, grain is not the only commodity that loses in weight from natural causes, the silence of the Standard Dictionary notwithstanding. Take, for example, beans. Even in heavy sacks, as stored by the United States Government in the commissary warehouses, shrinkage in weight results from evaporation. Then there is salt, in which extreme fluctuations occur. On the other hand, such commodities, as well as grain, will increase in weight under certain conditions. We may refer to the dry wheat that is grown on irrigated soil, and to malt, which will invariably absorb moisture while being transported to the various lake and ocean ports, and also to winter-stored grain of all kinds in vessels. The longer grain remains in the hold of a vessel the more moisture it will absorb. Therefore, in discussing the shrinkage question variations in the weight of vessel grain are not apropos. Nevertheless, the average vessel shortage noted at the different lake ports, as published by Mr. Junius Smith, lake weighmaster of the Buffalo Corn Exchange, may be interesting to the reader. This report shows that the average vessel shortage for 1908 for each 1,000 bushels of grain handled was, in wheat pounds, as follows: Corn, 15 pounds; wheat, 20 pounds; oats, 26 pounds; rye, 19 pounds; barley, 26 pounds; and the report gives the average shortage for all grains from all ports as:

Chicago, 10 pounds for each 1,000 bushels handled;

Milwaukee, 27;

Duluth and Superior, 15;

Gladstone, 18;

Green Bay, 24;

Ft. William and Port Arthur, 44 pounds.

What some of the railroads have attempted to establish is a shrinkage standard. Any such standard, however, would be unsatisfactory, impractical and inequitable. The different and varying sea-

sons make a shrinkage standard uncertain, even in the same grade of grain. And, too, probably the per cent of this shrinkage will vary to some extent from year to year according to the climatic and atmospheric conditions prevailing during the growing and harvesting of the different crops. It cannot be denied that condition, quality, quantity, dirt and moisture play an important part in causing natural shrinkage.

Again, the conditions governing the handling at the loading and unloading elevators also affect the weight. If the grain is dirty and full of moisture and a strong wind is blowing during the loading and unloading, more or less dirt will be blown out, and some of the moisture, too, will evaporate. In consequence, the amount of shrinkage is somewhat greater when grain is handled to and from cars during a high wind than when handled on a calm day. Hot, wet grain also, especially corn, will lose in weight to a considerable extent. The amount of this shrinkage depends upon the amount of heat and moisture in the grain and the length of time it has been in a heating condition. It is not unusual to see the floors and linings of cars that contained hot and wet corn soaked with water.

Elevator records show that the heaviest shrinkages and the greatest number of shortages occur during two seasons, viz.:

(1) During the period of car famines, when old and dilapidated cars, unfit for grain, are pressed into service. And right here it would be appropriate to remark that unfit cars are oftentimes pressed into service even when suitable cars are plentiful.

(2) During the seasons of handling and transporting new and low grade grains that are full of moisture and that are liable to heat in transit.

It is proper that Mr. Marshall, as he says, and others in the grain trade, have strenuously resisted attempts that have been made by some railroads to fix a shrinkage standard—at a stated amount to be deducted from the loading weights of grain by carriers when paying claims for leakage or loss that has been established. Such a standard would be unjust, for the natural shrinkage is infinitesimal in a large per cent of the cases; and where loss has so occurred in transit, the natural shrinkage is always an unknown quantity. Nor should it be overlooked that the railroads are responsible for losses by defective cars and inadequate police protection that cause material variations in the weights of grain; and, at least where such loss has been established, the shipper is entitled to all the doubt in the matter of natural shrinkage.

On the other hand, Mr. Boyd, of the Missouri Pacific Railroad, recently stated that his company was receiving an avalanche of small claims which amount to but 10, 15 and 20 cents to the car, representing alleged losses of grain in transit ranging from 10 to 30 pounds a load. In consequence, the question being considered by some roads at the present time is, When is a shortage not a shortage? that is to say, what amount of variation in weights shall be classed as worthy of consideration?

In conclusion, we submit the following tables showing shortages in weights which occurred in handling a number of cars of grain between various points where the weighing, loading and unloading facilities are modern. The first table shows 50 cars containing cold, clean, dry wheat of high quality, loaded at two terminal elevators, and a few days later unloaded and weighed into another terminal house in the same city. The loading weight in all cases was 60,000 pounds. The shrinkage was as follows: 50 pounds, 60, 20, 30, 10, 40, 30, 20, 80, 40, 20, 30, 20, 60, 40, 20, 50, 30, 20, 30, 40, 80, 20, 50, 290 (leakage), 60, 40, 20, 30, 70, 60, 20, 30, 50, 40, 30, 50, 20, 30, 90, 20, 80, 40, 30, 30, 20, 40, 30, making the average shortage 43 1/5 pounds to the car; or 0.072 per cent.

Here is a lot of 74 cars containing wheat of a high grade, clean and dry, the loading weight (except as noted) 66,000 pounds per car and the shrinkage 60 pounds, 110, 80, 120, 60, 100, 20 (60,000 pounds), 20 (60,000 pounds), 40, 40, 30, 110, 60, 90, 80, 100, 50, 70, 50, 70, 120, 70, 50, 30, 80, 40, 70 (60,000 pounds), 180, 60, 270 (leakage), 100, 80, 60, 60, 90, 40, 60, 70, 50, 40

120, 100, 110, 90, 80, 90, 90 (60,000 pounds), 70, 40, 40, 150, 60, 50, 130, 50 (60,000 pounds), 90, 90, 200 (open), 20, 50, 50, 190, 140, 30, 10, 50, 50, 40, 40 (60,000 pounds), 30 (60,000 pounds), 30 (54,000 pounds), 40 (54,000 pounds), 20, 40, making the average shortage 73.7 pounds to the car.

Here is a lot of eight cars containing oats of good quality in good condition moved from a Minnesota elevator and unloaded at a lake point:

Loading Weight. Pounds.	Shrinkage. Pounds.	Loading Weight. Pounds.	Shrinkage. Pounds.
72,000	60	29,800	60
50,000	100	48,000	130
48,000	140	48,000	60
48,000	360 (no seals)	48,000	80

Making the average shortage on the 8 cars 125 pounds, or an average shortage on 7 cars of 90 pounds each.

Here is a lot of barley of good quality and clean, transported between a Minnesota Elevator and Chicago. There were 134 cars all told. Sixteen of these were leaking; two contained hot grain; four had the doors open; and one was newly patched:

Minnesota Weight. Pounds.	Shrinkage. Pounds.	Minnesota Weight. Pounds.	Shrinkage. Pounds.
45,000	80	88,180	130 over
75,270	130	92,800	120
68,030	140	63,690	100
40,550	440 hot	44,000	110
66,120	30	60,000	50
59,120	70	66,000	20
42,550	50	53,400	70
76,140	100	30,940	50
65,420	90	37,500	40
88,000	10	88,000	50 over
66,000	70	61,200	100
88,000	150	40,000	60
81,100	120	76,900	150
87,740	120	59,680	20
49,920	80	44,000	even
60,000	even	61,190	60
60,000	190	54,000	even
60,000	40	56,500	10
60,000	40	58,880	120
56,000	110	52,080	100
34,930	10	62,630	190
49,490	100	72,860	50
63,080	50	50,330	170
62,770	even	31,020	20
72,550	140	62,950	50
79,380	190	41,490	30
55,900	80	56,370	40
45,780	60	74,190	10
68,640	70	80,000	100
66,000	20	55,000	20
44,000	120	66,000	10
40,000	30	44,000	20
88,000	80	88,000	30
66,000	160	48,000	20
50,000	140	67,360	20
88,000	120	88,000	30
44,000	200 dirty	87,000	20
68,080	20	61,230	30
43,820	80	60,640	70
44,000	60	82,420	200 open
88,000	10	80,000	100
66,000	even	80,000	50
62,240	440 hot barley	73,000	120
73,000	140	80,000	140
80,000	60	80,000	70
80,000	20	80,000	40
65,210	30	80,000	100
80,000	200 lkg.	80,000	60
80,000	80	80,000	130
80,000	10 over	80,000	even
80,000	120	80,000	20
80,000	60	36,120	50
66,180	50	37,020	220 do'r open
88,000	150	66,460	10
44,000	20	77,000	70
77,000	30	44,000	360 lkg.
79,700	300 lkg.	46,180	470 lkg.
88,820	490 lkg.	59,520	270 lkg.
44,000	200 lkg.	62,620	210 lkg.
42,000	420 lkg.	48,980	170 lkg.
65,170	230 door open	44,000	250 lkg.
66,000	430 lkg.	42,000	160 new patching
44,470	790 lkg.	44,000	800 lkg.
76,920	230 lkg.	42,940	200 lkg.
62,580	120 door open	48,000	20
55,870	30	72,000	50
58,150	40	44,000	20

Making an average shortage of 111 pounds to the car, or average shortage without the leaking cars, 77.6 pounds to the car.

Many farmers in those parts of Michigan devastated last year by forest fires are in desperate need of seed grain, cane and fodder.

Wholesalers of grain at Seattle, Wash., report that Chicago and Minneapolis grainmen are bidding against them for all oats offered in Northwest Canada. They state that although the Seattle buyers are offering the equivalent of \$41 per ton laid down on that market they are unable to buy oats in any large quantities.

NEW MILL ELEVATOR.

The elevator and tanks shown in the accompanying picture are a part of the milling plant of Frederick W. Stock & Sons, at Hillsdale, Mich. The elevator section consists of working house and six concrete tanks, each 20 ft. in diameter by 80 ft. high, with 7-in. reinforced concrete walls. The interstices also between the tanks are used for storage. In front of said tanks there is the working house, a steel building 23 ft. 10 in. long by 16 ft. wide and approximately 100 ft. high. The tanks have a total capacity of about 126,000 bushels. The building is arranged for receiving grain from cars in front of the working house; and is arranged for the installation at any time of a loading spout. In the working house there are located one 500-bushel garner over the scale and one 1,200-bushel scale with scale beam on the first floor. Under the scale there is a No. 10 Warehouse Separator of the latest pattern, manufactured by the Huntley Manufacturing Co. The working house has corrugated iron sides and concrete roof and floors throughout.

The building is further equipped with double car shovels and two round all-steel legs, each having a capacity of 4,000 bushels per hour. There is also a Humphrey Elevator leading from the first floor to the top floor, and one steel screenings bin. The

The entire work was executed by the Steel Storage and Elevator Construction Company of Buffalo. The scales were furnished by Fairbanks, Morse & Co.; the steel legs and boat tanks were made in the Construction Company's own Buffalo shops; while the machinery, with the exception of the motors, was furnished by the Webster Manufacturing Co., Chicago.

FUTURE WHEAT SUPPLY.

In the course of an address to the Ohio State Millers' Association on April 14, on "Our Future Wheat Supply," J. W. Burk, of Springfield, among other things, said that the entire wheat area of the United States is 50,000,000 acres, which upon first thought would appear to be sufficient to supply America forever. But when it is taken into consideration that there are 600,000,000 people in the world; that the United States is supplying one-fifth of the wheat for the world's wheaten bread; and that the increase of the population of the United States is greatly in excess of the increase of the wheat production increase, the contrary becomes apparent. He believed that in twenty years the exportation of wheat would be discontinued.

He also asserted his belief that the United States would shortly cease exporting beef also, since

are still in a state of nature and wholly undeveloped. In the face of this, contracts have been let to dig into, tear up and disrupt the best navigable portions of the present canals, thus making it dangerous for boats to navigate. "All of which may be a very fine arrangement for the railroads," says the boatmen, "the Canadians and rival seaports, but it acts as commercial death to New York; for at the snail's pace that barge canal work has progressed for the past ten years, and particularly for the past six years, there cannot be the shadow of an excuse offered for the tearing up of any portion of the present canals which are eventually needed for barge canal purposes, covering about one-third only of the distance of the barge canals lying between Waterford and Buffalo, between Three Rivers and Oswego, Troy and Whitehall."

The boatmen say also that the canals are foul with rocks, boulders, bars, eel grass and that the locks and banks are in a sad state of repair, so that it is difficult for boats loaded to the shallow depth of 3½ to 6 feet to navigate safely.

ALASKA WHEAT.

The Government through the Postmaster-General ordered the issue of a fraud order against the Alaska Seed Wheat Company of Juliaetta, Idaho. This is the second order of this kind issued against the company, probably on the ground that the company's circulars and other advertisements misrepresent the value of the Alaska wheat. After the first fraud order was issued, last December, Mr. Adams, promoter of the "Alaska" wheat, went to Washington and secured a recall of the order. Before resuming business, the company sent specimens of its new circulars to the department, which approved them. One of these new circulars sets forth statements by various agricultural authorities, some decrying the Alaska wheat and others praising it warmly. The cost of the wheat for seed, the circular announces, is \$20 a bushel.

This wheat was one of the most successfully advertised common-places in recent commercial history. Abraham Adams, a farmer, claimed to have isolated and developed this strain of wheat, which, he said, had yielded as high as 227 bushels per acre. The newspapers caught up the story and circulated it after their usual manner of handling anything sensational without stopping to question the facts; and the Philadelphia Saturday Evening Post, that high priest of the "god of things that go," was taken in with both eyes open though seeing nothing except a sensation. The gushy article "was widely copied; England was stirred; Australia and Argentina heard about it. It was to be seen that the days of a world's production of about three billion bushels of wheat were passed; that the farmers had only to sow and cultivate the Alaska variety for a number of seasons and the world's production would go bounding up into billions and billions. In the Northwest alone," says the Minneapolis Journal, "where about 200,000,000 bushels are produced in a year, and the yield averaged twelve to fourteen bushels to the acre, the possibilities of a wheat that would yield 227 bushels were overwhelmingly great.

"Then the United States Government began to look into it, and in the agricultural colleges in the various states the professors dug into their books and found the wheat to be an oldtimer, known for generations, and of no particular commercial value.

"One by one they pronounced against it; but the more concerned, thinking there might be something in it after all, journeyed out to Idaho to see about it, and there was a stream of travel westward. Juliaetta became a place of note. Opportunity was afforded meanwhile to farmers to purchase the Alaska seed wheat by a company that had it for sale at a price much higher than ordinary wheat. Eventually it was proclaimed a 'fake' by Dr. Galloway of the Bureau of Plant Industry in the Department of Agriculture at Washington, by James Wilson, Secretary of Agriculture, and twenty authorities of lesser note."

Now it is down and out; but it was "going some" while the run lasted.

Correspondence solicited on grain trade matters.



ELEVATOR AND GRAIN TANKS F. W. STOCK & SONS, HILSDALE, MICH.

grain is delivered to the bins through a 16-in. screw conveyor. The method of spouting to the bins from the conveyor is a portable iron line-spout, which is moved from one bin inlet to the other as desired. This method was designed and permanent spouts leading to each bin omitted for the practical reason of obviating any possibility of fire due to dust, or other causes, entering the top of the bins, a danger that was very plainly shown in the case of the Husted Milling Co. at Buffalo, which very recently took fire from outside on account of the flames working up through permanent steel spouts and setting the grain and bin work on fire.

Grain is taken out of the tanks by means of two 16-in. screw conveyors which deliver the grain to either the loftier leg or the receiving leg. If it is delivered to the cleaning leg, it is for the purpose of turning over the grain or spouting it to the mill; if it is desired to weigh the grain before sending to the mill, it is delivered from the lower conveyor to the receiving leg, thence through the scales and cleaner and then to the loftier leg and to the mill. All of the bins contain concrete hopper bottoms.

The plant is driven by two motors, one located on the top floor and the other on the ground floor.

A great deal of thought was given to this house in designing in order that it be a perfectly modern, up-to-date house in every respect and it is one of the most modern mill storage plants in the country today.

ERIE CANAL OPENING.

The New York Canal will be opened for traffic to-day, May 15. This is a very late date, especially so, considering the open winter and the little ice there was on the canal at any time, and the large amount of tonnage ready for the boats. However, those who urged the Superintendent of Public Works to name an earlier date for opening were met with the statement that the barge canal contractors will not consent to a deviation of the canal act as to the opening provision May 15, says the New York Commercial Bulletin. The boatmen reply that the superintendent forgot the fact that many miles of the new barge canal plans have not as yet been perfected, and that some portions are not yet fully determined upon, while hundreds of miles do not come in contact with the Erie Canal between Troy and Buffalo; also that large stretches of the barge canal

GRAIN HANDLING IN ENGLAND.

At a recent meeting of the British Institution of Civil Engineers a paper on "Some Recent Grain-Handling and Storing Appliances at the Millwall Docks," was read by Mr. Magnus Mowat, M. I. C. E. The following is an abstract, taken from *The Miller* of London, in which Americans may be interested, if only because it shows the operation of the pneumatic system of unloading, so much in use abroad:

"For dealing with grain imports at the Millwall Docks, a granary and equipment has been re-



SHOWING METHOD OF DISTRIBUTING GRAIN TO DIFFERENT BINS.

cently constructed at the north-west corner of the inner dock at a cost of £170,000. The design adapts itself to the local conditions of trade, and the grain is taken direct into store by entirely mechanical means. The time occupied in discharging a ship has thereby been reduced by 50 per cent. The installation consists of a dolphin, elevators, silos and granary, and provides for the discharge and weighing of 550 tons of grain per hour ex-ship, and for its delivery either partly or wholly into granary, silo, or barge.

"The elevators which come in contact with the ship's hold are of the pneumatic or suction type, adaptable for use with small parcels or mixed cargoes, and can be worked in conjunction with other discharging operations on deck. The granary and silo elevators are of the bucket type, and, like the band-conveyors, are of two-ply woven cotton, impregnated with rubber. These bands have a total length of 2½ miles; they are electrically driven.

"In the waterway there is a dolphin, alongside which the ship is moored. This is a wooden jetty of greenheart timber 350 ft. by 24 ft., placed 50 ft. clear of and parallel with the quay. On its deck are four suction elevators, each of 75 tons per hour capacity, corresponding with the respective holds of the ship. The power is supplied to these elevators by machinery placed within the dolphin, viz., two marine boilers supplying steam to a 900-h.p. vertical compound surface-condensing engine, which works four pairs of exhauster pumps, each 46 ins. diameter by 60 in. stroke, i. e., one pair to each of the four elevator towers. These pumps maintain in the grain-receivers on the top of the towers a partial vacuum of 7 to 10 ins. of mercury.

"Flexible pipes connect the receiver with the ship's hold, and the grain is elevated to a height of 80 ft. by the inrushing air, the proportion of air being controlled by nozzles with adjustable sleeves. The grain separates itself from the air in the receiver, and automatically discharges through 'tippers' at the bottom of the chamber into hoppers which feed the weighing machines. These deliver through steel shoots into barges, or connect with the quay by band-conveyors on bridges spanning the intervening water-space.

"There are two floating elevators of a collective output of 250 tons per hour. The machinery is of the type already described, but is placed on steel barges, which are capable of being navigated in the dock.

"On the quay are four nests of silos for the purpose of rapid clearing of grain, and for quick delivery to railway-trucks. The silos are steel tanks of 10 cells each, and have a gross capacity of 4,000 tons of grain. The external dimensions are 40 ft. by 27 ft. 6 ins. by 36 ft. deep. The underside, which is supported by stanchions of rolled-steel joists, is 24 ft. above the railway metals which pass below the silos.

"The granary is a brick building 250 ft. by 100 ft. net. It has 11 storage-floors, in addition to delivery-floor and basement, affords a floor-area of 7½ acres, and is capable of housing 20,000 tons of grain. It is divided into five compartments by fireproof walls. The floors are of pitch pine, tongued and grooved, and spiked direct to bearers bolted in pairs, resting on cast-iron columns. Four steel-work towers carry the elevators at the south end of the granary. The lower portions of these are enclosed by steel plates so as to form 'garners' of 100 tons' capacity each. These provide an auxiliary store in case of emergency, or when changing the housing sections, thus keeping the discharge from the ship continuous.

"The band conveyors within the granary and subways under the quay number 20, and the elevators 12. The bands are endless, and are supported at 6-ft. intervals by steel rollers on cast-iron standards, tied longitudinally by steel angles on each side; their speed is 552 ft. per minute. The bands and elevators form a series for mechanically conveying the grain from the dolphin elevator to the roof of the granary, from which it is distributed to the various floors by gravity through pipes provided with sleeves and doors for housing and delivery to or from any section.

"On the delivery-floor the grain passes through breeches pipes, over the crutch of sack-weighing

354 h.p., for driving the various machinery. These are controlled from a switchboard in the basement, which is in telephonic communication with all parts of the granary and dolphin."

[The cuts are reproductions from the English prints in *Page's Weekly*, and of course are not up to our usual standards.]

CORN FROM SOUTH AFRICA.

It is admitted that the importation of corn from South Africa, where there now seems to be a surplus, is attended with some uncertainties, nevertheless, says the *New York Journal of Commerce*, it has been stated that positive preparations are under way in that city to try the experiment. The mere announcement that certain large users on the Atlantic coast were seriously considering the importation of South African corn caused much comment; but owing to the free offerings of freight room from Africa to New York and the low prices at which corn had been selling in South Africa it was figured that it could be laid down in New York duty and freight paid for 58½c a bushel in comparison with 74c for the July future with which it would compete.

It was pointed out, however, that there were certain physical difficulties in the way which might prove insurmountable, chief among them being the effect on the grain while passing from a temperate zone through the torrid and again into a temperate zone on a voyage of six weeks duration. It was admitted that the heating of the corn while confined in the ship's hold might cause injury to the grain, but much would depend on the condition at the time of shipment.

As against this argument, however, was the apparent fact that South African corn is already shipped to Great Britain, although in a much shorter time, owing to the superior shipping facilities available. Furthermore, Argentina is also a large shipper of corn to Great Britain, involving shipment from a temperate zone through a torrid to a tem-



GENERAL VIEW OF GRANARY, SHOWING ALSO TOWERS, GARNERS, DOLPHIN BRIDGES, ETC.

machines. After sacking, the grain is trucked to vans or railway wagons alongside the adjacent platforms. Delivery back to dock is effected by conveying bands in the subways, which discharge the grain either in bulk or sack right over the gunwale of the barge. The relative deliveries are: to van 35 per cent., truck 35 per cent., craft 30 per cent. Small parcels are kept separate on the floors by bulking boards.

"The grain is amply ventilated, but should it be out of condition there are facilities for turning it. A screening plant also is provided.

"There are 24 electric motors, collectively of

perate zone and at a similar time of the year; but once again it is pointed out that shipping facilities are provided for regular traffic. Consequently the difficulties attending an experimental shipment might be overcome in the event of any considerable development of the trade.

The interests behind the present movement are large users of corn and have no idea of importing it for other than their own use, says the *Journal of Commerce*, but if the experiment should prove successful, it is possible that the regular trade might take a hand in the enterprise, especially if prices for the American grain continue on their present

high level. It is estimated that the South African corn crop is double that of the last year and is conceded to be of very fine quality and entitled to compete with the American grown cereal.

DEATH OF FREDERICK P. RUSH.

Frederick P. Rush, one of the oldest and best-known German-Americans of Indianapolis, as well as one of the leading grain dealers of Indiana, died in that city on April 29 after an illness of several months' duration.

Mr. Rush was born on May 10, 1834, at Telgte, Westphalia, Germany, and came to America in 1853, settling at Indianapolis in November of that year. He had not an acquaintance in the land, but he secured work in the hardware and grocery house of Vollmer & Vonnegul, then in W. Washington Street. In May, 1855, he formed a partnership with Henry Schnull in the grocery business. This connection continued until August, 1856, when Mr. Rush withdrew to become a dealer in flour, feed and field and garden seeds in old Masonic Hall, at the southeast corner of Washington Street and Capitol Avenue, succeeding the firm of Lockhart

remain in Indianapolis and are in the grain business, among them being Bert A. Boyd, W. H. Cooper and Thos. Oddy. These young men always had a profound respect and admiration for Mr. Rush, that was born of their intimate business relations with their chief; so that they understand best of all men why the world in general honored Mr. Rush as a high-principled business man and exemplary citizen; and the following tribute, adopted by the call board of the Indianapolis Board of Trade immediately after his death, expresses in part the regret the people of that city generally feel:

Your committee would report and recommend the adoption of the following:

On April 29, 1909, was ended the life work of Frederick Paul Rush.

Mr. Rush was one of the pioneers in the grain trade in Indianapolis, was of the company of men who organized our first Board of Trade, being its first president, and until a few years ago was actively in the grain business.

It is therefore fitting that the Indianapolis Board of Trade should at this time express its regret because of its loss in his death; and that the members of the grain trade, who have known him so intimately for years, who have been helped and encouraged by his generous acts and kindly words of advice, should express their sincere sorrow, and also their admiration for his upright character, and thankfulness that they should have had for so many years his friendship and the benefits of association with him.

Resolved. That in the records of the Board of Trade this memorial be entered: also that a copy be given to his family, to whom is extended the sympathy of this association; further that there be no session of this call board on Saturday, May first.

ARTHUR GILETT,
W. H. COOPER,
BERT A. BOYD,
Committee.

WANTS THE CASE REOPENED.

A petition was filed at Washington on April 28, with the Interstate Commerce Commission for the reopening and rehearing of the controversy between the Baltimore Chamber of Commerce and the Pennsylvania and other railroads in regard to the "scaleage deduction" on shipments of grain.

In its decision of Feb. 8 last, the Commission stated, among other things, that—

The defendants issue certificates for the actual weight of grain shipments going into their elevators at Baltimore, and on that weight assess their transportation and elevator charges; but each certificate shows on its face the "scaleage deduction" that will be made, on the basis of published tariff estimates, when the grain is delivered out of the elevator to the certificate holder. Upon complaint that these deductions are arbitrary and constitute an illegal appropriation of the property and moneys of the complainant's members and others who ship grain to Baltimore, held:

1. That the defendants by this practice are not exacting from grain shippers either a rate in the form of grain or an addition to a rate, and, therefore, the question presented is not one of rates.

2. Neither is the practice one affecting rates, as the tariff rules are simply notice that, while the shipment weighed so much when taken into the elevator, the grain will weigh so much less when it goes out, because of the weight of dirt, dust, chaff and moisture, which, in the process of elevation, will disappear and cannot therefore be delivered to the holder of the elevator certificate when the grain is ordered out. So long as the deductions are based on reasonable estimates of the weight of foreign matter that is unavoidably eliminated and lost in the process of elevation, the practice is not one that affects rates or has any real relation to rates.

3. The practice of one defendant herein of supplying at its New York elevators enough grain to make up the weight of dirt, chaff and moisture, lost in the process of elevation, is a practice affecting rates, in that it is an advantage or benefit that the shipper gets under the published rate; but the charge that the making of deductions at Baltimore and not at New York is unduly prejudicial to Baltimore is not now considered, the record not having been made with a view to the disposition of the complaint upon that ground.

The petition for a reopening and rehearing which is filed by Arthur George Brown, John B. Daish and R. E. Lee Marshall holds that the Commission erred in certain findings of fact and on other questions of law.

The last relic of the famous Harper wheat corner of over twenty years ago is a judgment for \$5,000,000 against E. L. Harper, which will be offered for sale by George C. Rankin, receiver of Harper's Fidelity National Bank, on May 17. This judgment is the last asset of the failed bank, and was secured by the receiver against Harper to cover the amount owed the bank when it failed. Harper served several years in the penitentiary at Columbus, Ohio, for using funds of his bank to bolster up his corner.

DEATH OF J. G. SHARP.

J. G. Sharp of Des Moines, Iowa, who may well be called the father of the flour mill mutual fire insurance business of this country, died suddenly on April 26, of heart disease, aged 71 years.

Mr. Sharp was a native of Scotland, but came to America when quite young; and our first information of him was as a miller at Iowa City, from which place he removed later to Wilton, where also he carried on a milling business until called to Des Moines in 1885.

It was while doing business as a mill owner at Iowa City, that, at a meeting of the then Iowa Millers' State Association, on August 5, 1874, he made to that body the startling proposal that the millers of that state should go into the fire insurance business. The proposition seemed so far out of reason that one of the members of the association facetiously proposed an inquiry into Mr. Sharp's sanity. But Mr. Sharp was "true to name," and so was able, partially, at least, to convince his fellow millers that there was more in his suggestion than they at first thought. At this meeting,



THE LATE FRED'K P. RUSH.

Brothers. Here he developed a small trade into a large and thriving business.

He began handling grain in the fall of 1857, buying and shipping on his own account, and was the first dealer in Indianapolis to do so in a large way. At first he shipped to Cincinnati, Louisville and Cleveland, but he soon extended his transactions to all parts of the East and Southeast. In 1875 he formed a partnership with Edmond F. Gall, who died in 1893, and George E. Townley, who died in September, 1900.

In 1862 he built a grain elevator in South Delaware Street facing Georgia Street, which he sold some years later to the Pennsylvania Company. He subsequently built Elevator B on the Vandalia and Belt Railroads west of the river. This elevator was burned on the night of January 23, 1893, entailing a heavy loss, and it was not rebuilt.

Although Mr. Rush suffered many losses in business, amounting, it is said, in a period of ten years, beginning with 1873, to more than \$500,000, nevertheless he never failed to meet his obligations, and he eventually retired with a competency, which now reverts to his widow, *nee* Bertha Gall, a daughter of Dr. Alois D. Gall. There is a sister also still living at Telgte.

Mr. Rush, who bore the honored title of "Father of the Indianapolis Board of Trade," was the first president of the organization. He took office rooms in the old Board of Trade building in 1874, continuing there until January, 1901, when, because of ill health he sold out to Frank L. Murphy & Co. and retired from active business. During the period he had many "boys" around him, some of whom still



THE LATE J. G. SHARP.

therefore, a committee was appointed consisting, however, of Mr. Sharp *solas*, to inquire into the matter. Mr. Sharp undertook the task; and at the association's meeting in January, 1875, he made his report, the upshot of which was that a further committee was appointed, on which other millers then consented to serve, with no fear of being classed among the insane. This committee reported to a special meeting of the association held at Des Moines on April 21, 1875, at which time it was recommended that a company be organized; and in July following the Mill Owners' Mutual Fire Insurance Company of Iowa was formally declared ready for business; and thus was launched the first mill owners' mutual fire insurance company of which we have any record. Of this company J. G. Sharp was made president and G. H. Crosby secretary.

The success of the company was immediate; and at the end of the first eighteen months' business the records show that there was \$470,500 at risk with deposit notes of \$21,162.50; the cost of insurance to the insured for the period named was \$14,143.20. The last published statement of the company, dated January 1, 1909, shows insurance in force, \$10,323,910, and deposit notes of \$802,319.33. The statement shows also that the total amount of money saved to the company's policyholders during the thirty-four years of its existence had been \$1,909,196.60. The total expense of the company for the same period, excluded from sum named as savings, was only \$360,763.87. Surely few men have left behind them a more striking record of financial benefits to their fellows more than J. G. Sharp.

It was several years after the organization of the company before Mr. Sharp became its secretary; but while he was still at Wilton, a miller, he was asked to accept that office, which he did. The office was removed to Wilton; but in 1885 he transferred the office of the company to Des Moines, which city has been its home since; for he was annually re-elected and continuously served as the company's secretary up to the day of his death.

Mr. Sharp leaves a widow and a family of seven adult children, and a spotless name as a business man and Christian gentleman.

PATTEN NOT TO BLAME.

Amid the crash of criticism hurled at Mr. Patten's devoted head, there was heard an occasional defense of a man, who, unlike Mr. Leiter in 1898, was not hailed as the benefactor of the time,—the man who managed the farmer's boom and for whom the Kansas farmers prepared a "benefit" when he "went broke." Mr. Patten's bull movement brought him curses for the most part, so fickle is humanity. But—

Grain merchants in Baltimore and elsewhere are denying that the high prices of wheat and bread-stuffs generally are due to corners or price manipulations. The situation is a natural one, they say, the prices being regulated by the law of supply and demand. This they maintain in spite of the opinion general that the Chicago market has been cornered by Patten and that he is by skillful manipulation forcing upward the prices on wheat so as to unload with enormous profit when the climax is reached.—*Baltimore American*.

"Talk of manipulation on this market is absurd," said W. C. Sunderland. "With May wheat—practically cash wheat—selling on the Omaha market for \$1.26½ and bringing \$1.26@1.27½ in Chicago, there can certainly be no manipulation when the freight from Omaha to Chicago is 7½ cents. That would make the wheat selling at \$1.26½ in Omaha worth \$1.33¾ in Chicago. No manipulation possible. It is simply a matter of supply and demand. Every year the population of this country is increasing, and besides we are teaching the foreigners who come to this country to eat white bread. That is a big increase in the consumption of itself. The foreigners come here accustomed to bread made of cereals other than wheat. They are not here over two years until they are heavy consumers of white bread. They consume it in such quantities that it has its effect on the world's supply. Cutting down the acreage of wheat in the corn belt because we are teaching farmers to grow more and better corn at a greater profit to themselves is another factor, while the truth about the crops is that we have not had a real good wheat crop for the last four years."—*Omaha Bee*.

There was a divergence of opinion yesterday among the men at the Produce Exchange who handle wheat shipments, and the records in an official way, regarding the cause of the great jump in prices. One of the inspectors, who is regarded as an authority, said that there was enough wheat and that the high prices were the result of manipulation. But Mr. Heinze, the statistician of the exchange, said that there were evidences of shortage in the reports and in the conditions that confronted the millers since last autumn. Each said that the wheat export business was dead.—*New York Tribune*.

"The general impression concerning the wheat market is that the present high price of wheat and flour is due solely to the fact that Mr. Patten of Chicago has cornered the market and that wheat has been forced above its true and legitimate value. This impression is emphasized in the morning papers in scare headlines, leading the public to believe that wheat may take a drop in a day of 25¢ per bushel. As a matter of fact, the scarcity of wheat throughout the Southwest has been known generally by well-posted millers from three weeks to a month past, and most of them made purchases to cover their needs up to the first of June. There has been some wheat purchased in New York, which will be shipped by water to Galveston and rebilled into Texas, something never done before in the history of the state."—J. Perry Burrus, miller, McKinney, Texas, in *Dallas News*.

Millers of Philadelphia, commenting yesterday on the wheat operations of James A. Patten, the Chicago bull speculator in wheat, declared that in their opinion the increase in the price of wheat is not due so much to speculation as to an actual shortage in the supply. "Consumption of wheat has overtaken production," said R. H. Dewees, of the Millbourne Mills. "The government estimate of the wheat crop of 1908 was unquestionably too high, and consumption has been increasing. When Patten started buying May wheat last fall there was actually less wheat in the country than when Leiter started, while the population was considerably larger."—*Philadelphia Press*.

Every London newspaper contains a leader on the position of the wheat market. Generally the ground is taken that Patten's activities can have contributed only partly to the high prices, because the world's supplies are distributed too widely for values to be dominated by one market.—*London Cable*.

This talk of Patten's cornering the wheat market appears ridiculous to those who are posted on

actual wheat conditions throughout not only this country, but Europe. With only a little over 4,000,000 bushels of contract wheat in Chicago out of a total visible supply, on Monday last, of 32,628,000 bushels, it may be seen that others outside of Patten, presuming he holds the entire Chicago stock, must be carrying about 28,600,000 bushels, or about seven times the entire Chicago stock. This clearly shows that if a corner is in existence there are others besides Patten engaged in it.—"Justice" in *Debt Free Press*.

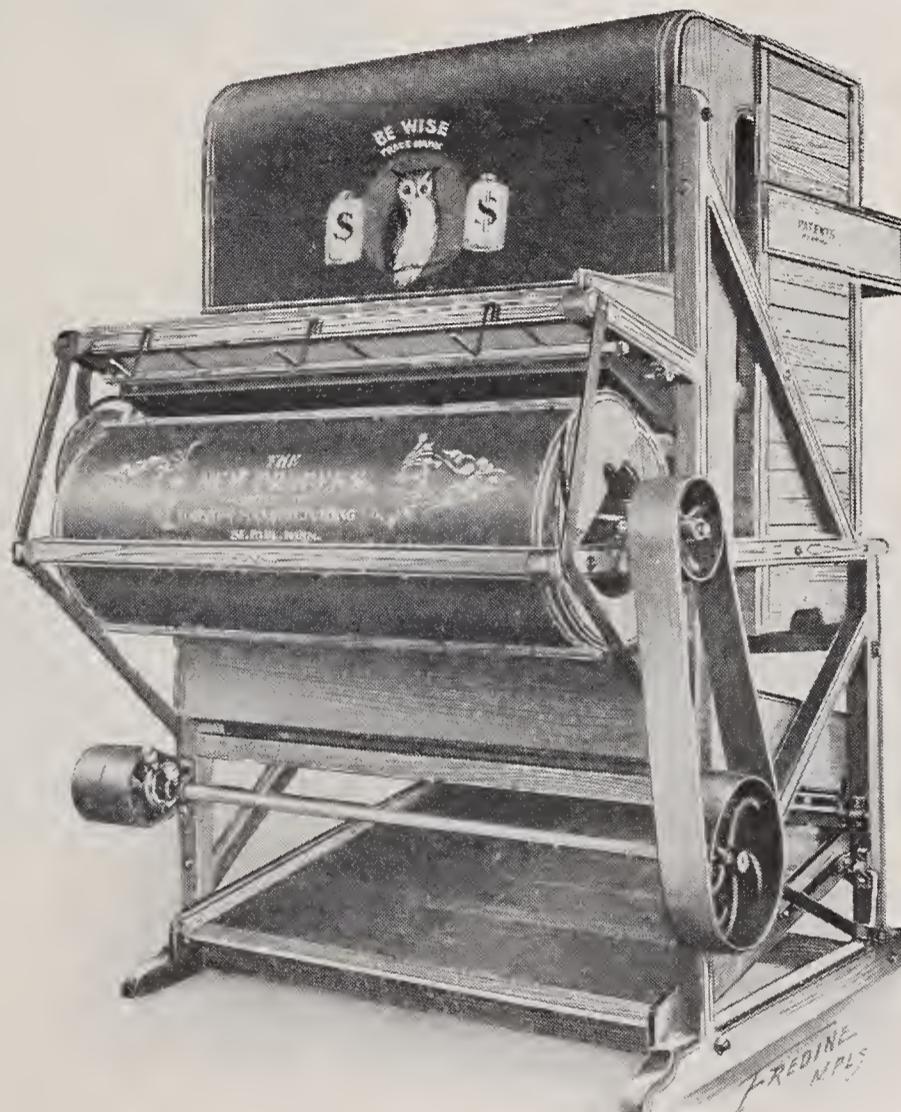
Did not intend to devote my White letter to Mr. J. A. Patten until I saw the unjust criticism he is now receiving from an unthinking public. I will admit that we have had corners manufactured at Chicago, which have been detrimental, but today, I believe wheat is selling entirely on its merits. We must remember that it is conditions which make prices. The conditions that face us today were foreseen by Mr. Patten some time ago and I give him credit for making a shrewd investment, the same as I would any other business man.—Harry W. Keen, Piqua, O.

Horace E. Kinney, a grain dealer at Indianapolis, told the "Current Topics" class of the Social Institute, at the Board of Trade Building on May 3, that

A NEW PROCESS ELEVATOR AND WAREHOUSE CLEANER.

A grain-cleaning machine that is built essentially to meet conditions as they are found to-day is shown in our illustration. It is the result of careful study and a thorough knowledge of grain conditions by O. T. Helgerson, who has been for some time with the Fosston Manufacturing Co., of St. Paul, Minn., the manufacturers.

In the New Process Cleaner and Separator the frame is carefully made of good, clear, well-seasoned hard wood timber, bolted at every joint to secure rigidity and perfect alignment. The feed is regulated by set screws. On the lower part of the hopper board is a strip of steel which projects beyond the wood. When the feed is shut off entirely, this steel strip slides under the bottom edge of the back hopper board, thus stopping the flow of grain instantly, when desired. This bottom hopper board



THE NEW PROCESS ELEVATOR AND WAREHOUSE CLEANER.

the price of wheat might have been high if it had not been "cornered," but he said that a part of the high price was due directly to J. A. Patten, the Chicago speculator. "Wheat would have gone up without the speculation, but it would not have gone so high."

Incidentally he told why the price of wheat in Indianapolis appears to be higher than the price in Chicago for cash wheat. This, explained the speaker, is the result of the fact that mills in this part of the country are equipped for the grinding of what is known in the trade as "soft" winter wheat. This kind, with others, is included in what is classed as "contract wheat" on the exchange. Because there is a greater demand for this kind of wheat for use in mills it is higher on the market than other classes of the same general grade.

The speaker gave a history of the Chicago Board of Trade and discussed the various evils of trading in futures, but he explained that while there was much buying and selling that was nothing short of gambling there was also a demand for the ability to purchase for future deliveries in the transaction of legitimate business. He believed that it would be impossible to stop much of the evil attending such trading, suggesting as a remedy the limiting of future deliveries to the current and coming months.

is divided in three sections, with a separate screw for each section, so that the flow of grain may be distributed evenly over the entire surface of the sieves.

The grain entering the hopper is conducted thence directly into the blast. The blast can be regulated so as to secure just the right amount for the grain which is being cleaned. Sufficient blast is used to carry the grain directly up, the heavier grain being carried only a very short distance, while the lighter may be carried to the top of the air duct. As the action of the wind loses part of its force all of the good grain drops back into the vacuum, which is formed in the back part of the air duct, while everything of a light nature, such as dust, fine dirt, chaff, small pin oats, fine seed, etc., are carried on over into the air chamber. Here everything except the dust and chaff settles down and is spouted out of the side of the machine.

After the grain with everything heavier has passed through the blast, it is delivered upon the gang in the upper shoe. This gang is composed of nine zinc sieves, five of which are secured to the frames and four are simply attached at the top and rest on rods at the bottom. The screen in the New Process cleaner positively will not clog, this being due to the peculiar shape given it. The shaker

arms are attached to the frame in the center of the side instead of at the end, and under this frame at all four corners are rollers. There is sufficient play so that the frame is kept constantly vibrating between the rollers on the bottom, and a cleat on the shoe at the top. In passing over the screen everything smaller than the grain which is being cleaned, but which may have been heavy enough to go through the blast and small enough to go through the sieves, is removed and the grain thoroughly cleaned, may be conducted into a pit or elevated as desired.

[From the "American Miller."]
THE ANGOUMOIS GRAIN MOTH.

BY DR. F. H. CHITTENDEN.

Of the U. S. Department of Agriculture.

Editor American Miller.—I enclose a few grains of wheat, and would be obliged to you if you or some reader of the "American Miller" will tell us through the journal what has eaten it so. The insect is in the grain when thrashed, and as soon as it eats its way out it flies off. It looks like a small miller. What is it? They seem to be all in a small settlement about 6x8 miles square. All the wheat in that territory is eaten more or less. Other wheat around shows no sign of them. Where the wheat is damaged in this way, it is light 7 to 11 pounds to the struck bushel.

(Signed) TIM HICKMAN, Hartshorn, Mo.

The grains of wheat which you send show injury by the Angoumois grain moth (*Sitotroga cerealella* 01.), the insects having escaped. There are, however, quite a number of minute, wasp-like parasites, known scientifically as pteromalids. Some of these parasites are extremely useful in destroying injurious insects, including those of the mill and warehouse. It is somewhat doubtful if they can be controlled artificially but the trial is worth making; in fact, the writer has in mind two cases in point. In a case which came under his personal observation the insects were in a large rearing cage and were completely killed out by the parasite. The parasite, *Omorga frumentaria* in this case, became introduced accidentally, entering through the meshes of the cloth covering of the rearing jar through which the host insect or pest, a species closely related to the Flour moth, was unable to penetrate.

The adult of this insect looks, as our correspondent describes it, like a small "miller"; indeed, there is so close a resemblance between the Angoumois grain moth and the ordinary clothes moth that only an expert can distinguish between them. They are both of a pale grayish color and the grain-feeding species is lined and spotted with black. It measures across the forewings, when fully extended, about half an inch. The hind-wings are bordered with a long, delicate fringe (see *e*, Fig. 1.).

The moth of this species may deposit its eggs either in standing grain or in the bin, granary, or warehouse, sometimes singly and sometimes in clusters up to thirty in number. The eggs, soon after being laid, turn to a reddish color, in which respect they differ from those of any other insect which affects stored products. A much enlarged egg is shown in the illustration at *a*. Under a magnifier it is plainly seen that it is covered with longitudinal ridges. From these eggs minute caterpillars are hatched, usually in from four to seven or more days, during the active season of the pest. These soon burrow into the kernels of grain and feast on the interior. In case of the smaller cereals a single grain suffices for the development of a single individual of the insect but when larger grains, like corn, are infested by this species, many individuals are produced, as shown in Fig. 2, which illustrates an ear of popcorn showing the work of this species.

Although this insect is known as the Angoumois grain moth, because of the great injury which it accomplished in the province of Angoumois, France, in the 18th century, its place of nativity is really unknown. Records show that in France it has been injurious since 1736 while in America it has been injurious as early as 1728. In this country in the early times when it first became injurious it was commonly but not correctly known as the "fly weevil" to distinguish it from the true weevils—beetles with long snouts which have similar habits.

This insect infests practically all of the true cereals, as also buckwheat, chickpea, and some other

seeds. A complete list of food plants will be furnished in a future number. Of its injuries it has been estimated that in warm weather grain in store may lose from its attack, in six months from 40 per cent to 75 per cent of its nutritive matter.

The life history of this species does not appear to be fully known at all by farmers and millers generally although it has been published frequently. The periods vary greatly, of course, according to the season and locality, the main differences being

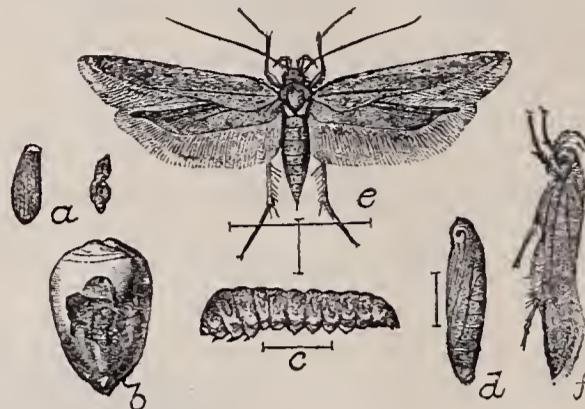


FIG. 1, ANGOUMOIS GRAIN MOTH—*Sitotroga cerealella*.
a, eggs; b, larva at work; c, larva, side view; d, pupa; e, moth; f, same, side view.—Author's illustration, U. S. Dept. Agr.

due to temperature, the insect developing rapidly in a high temperature and much more slowly in a cool place or in cold weather. As a rule, the development of the insect ceases when the infested substance is at a temperature of 51° Fahr. or a little higher; indeed, this is true of most insects injurious in mills and warehouses. At such times they merely cease activity and become more or less torpid.

In from three weeks to a longer period the caterpillar attains full maturity when it spins within the infested kernel a silk cocoon where it transforms to the chrysalis or resting stage; a week or more later, according to the temperature, the moth emerges.

The entire life cycle, from egg to adult, embraces in warm summer weather about five or six weeks and in cold weather this period may be considerably lengthened. After emergence copulation takes place practically at once, the moths depositing their eggs for another generation and, after all the eggs are laid, the adults die. It has been repeatedly stated that this species is double brooded but, as it practically breeds continuously in stored cereals during ordinary weather, there is a possibility of several generations in a year. The writer has assumed that in a latitude like that of the District of Columbia in an out-door exposure, such as an open corn crib offers, there is a practicability of four generations a year, while in a heated atmosphere, or in the warm and equable climate of the South, there is the possibility of five or six generations or broods each year.

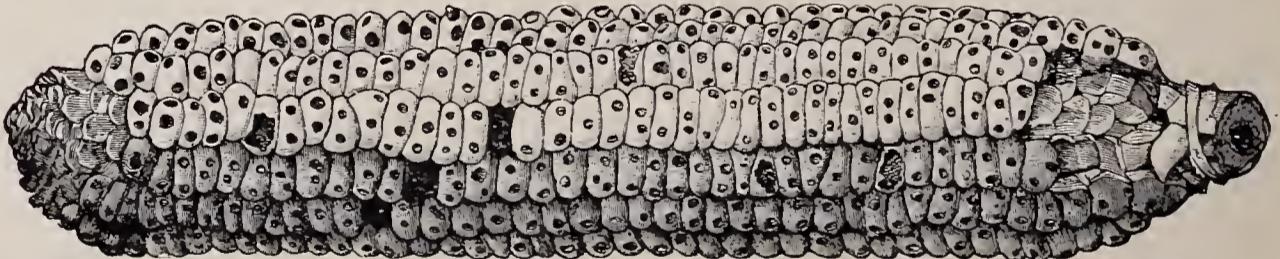


FIG. 2, EAR OF POPCORN SHOWING WORK OF ANGOUMOIS GRAIN MOTH.—FROM RILEY IN ANN. REP. DEPT. AGR., 1884.

In Missouri the number of generations would probably vary between three and four.

The Angoumois grain moth can be controlled by the same methods as practically all other insects affecting stored cereals with the exception of the Mediterranean Flour moth. Of prime importance is prompt thrashing, especially in the South, which will destroy all of the insects and prevent their obtaining access to the storehouse. Old bins and even entire buildings found to be infested should be carefully cleaned out and fumigated with bisulphid of carbon before new grain is introduced. The bins should be thoroughly cleaned,—floors, walls, and ceilings scrubbed and brushed so that the chances of the insects obtaining a foothold will be reduced to a minimum. Indeed, with the observance of strict cleanliness alone it is possible that injury by

insects affecting stored products might be reduced 25 per cent to 50 per cent. In some cases, there can be no doubt, a large proportion of injuries, especially in the South, can be directly traced to an utter disregard of ordinary neatness. The writer has seen warehouses and recently received reports from one of his agents that in very large concerns all forms of rubbish, such as dust, dirt, sweepings of grain, flour, and meal are permitted to accumulate for months and serve as breeding places for these pests. In some cases a weekly sweeping out is done, but occasionally a week or two is missed and, again, this work is not thoroughly carried out. The floors of all warehouses should be frequently swept and material of all kinds that has no commercial value should be promptly burned with all contained insects in their various stages. Old flour and grain bags often harbor insect pests and are, therefore, a serious menace to the miller and grain dealer. They should be frequently fumigated or steamed.

The value of a cool, dry depository and of ventilation and the avoidance of "heating" is so well known that perhaps it need be merely mentioned. "Heating" may be caused independently of the attacks of insects, but an abundance of insects in stored cereals frequently causes heating so that the temperature of infested material may be increased to 25° or 40° above the surrounding temperature. This phenomenon is not quite thoroughly understood.

Among special remedies for this species is storage in large bulk, since the surface grain only, as a general rule, is exposed to infestation, few of the insects being able to penetrate very deeply into a large mass. This method is particularly valuable against this grain moth and is less useful for other similar grain pests.

When grain is frequently agitated much good is accomplished, since the moths, being unable to extricate themselves from a large mass of infested material, perish in the attempt.

So far as we know cold is of no value as a remedy for this species, especially as it does not occur far northward, dying out in a short time—within a year or two after its artificial introduction into northern states or into Canada. The value of heat against stored products is well known and in some instances can be put to practical use.

Hydrocyanic-acid gas has, on different occasions, been tested by the writer against the Angoumois grain moth without satisfactory results, even used as strong as four ounces to 100 cubic feet in a building which was as tightly closed as it is possible to make a frame structure. It was not air tight by any means but theoretically so, as great pains were taken to produce this effect. Used at the rate of two ounces of potassium cyanide to 100 cubic feet of space, with an exposure of about one day, all of the moths flying freely about the building were, of

course, killed. The same happened in the case of the second fumigation at double the strength of potassium cyanide with the same species after an exposure of nearly two days. The insects continued to breed out from the affected material, corn in the ear, for a long time after this second fumigation, indeed until the infested material was removed. Everything was conducted under the most favorable circumstances.

It is well known that hydrocyanic-acid gas, though valuable for some purposes, lacks the penetrative power of some gases, such as sulphur when forced into buildings artificially under special process, and bisulphid of carbon used in the usual manner for fumigating buildings. It may be well to call attention to what was said in the columns of the "American Miller" for August 1, 1906, page 657.

In commenting upon the fact that Prof. H. E. Summers, State Entomologist of Iowa, reported failure in the fumigation of a large seed warehouse, using one ounce of cyanide of potash to 100 cubic feet of air space, the late Prof. W. G. Johnson remarked that this was just what would be expected. Hydrocyanic-acid gas is lighter than air and is a gas for fumigating large enclosures but *not for fumigating grain in bulk*. If the infested building could be made absolutely air-tight there is no doubt of the efficacy of hydrocyanic-acid gas, but it must be used strong, with a forty-eight hour exposure, for successful results.

By far the best, because the simplest and least expensive, remedy for this as well as most other insects which affect stored products is bisulphid of carbon, a colorless liquid which, when in use, usually has a strong, disagreeable odor. This chemical evaporates abundantly at ordinary temperatures, is highly inflammable but not explosive under ordinary conditions, and is a powerful poison, being especially effective against insects, more so by far than hydrocyanic-acid gas. It has been extensively used for the fumigation of milling establishments, grain elevators, stores and warehouses, for the destruction of these insects in stored food and other products for many years. Incidentally, it should be mentioned that it is of great value in the destruction of other vermin, such as rats and mice, which frequently infest the same structures. In its application to insect-infested grain it may be applied directly without detriment to the edible or germinative principles of grain by spraying it on, but by far the best manner of administering this remedy is by evaporating the bisulphid in shallow dishes or pans, such as pie plates or milk pans. When the latter are used not more than about half an inch of liquid should cover the bottom of each pan. The liquid volatilizes rapidly and, as it is heavier than air, it descends and permeates the mass of grain, killing all other insects and vermin which may be present.

In tight bins or other receptacles it is applied at the rate of a pound to a pound and a half to each ton of grain, but in more open bins and buildings a larger quantity must be used. For smaller masses of cereals or similar material an ounce is evaporated for every 100 pounds of infested matter. For the fumigation of an entire building success has been attained by the use of bisulphid of carbon at the rate of one pound to each 1,000 cubic feet of space. At this rate, in absolutely air-tight receptacles, the writer has killed insects in stored grain over night, i. e., with about twelve hours exposure, but in the average building the amount of bisulphid must be increased from one and one-half to two pounds to each 1,000 cubic feet of space. This is true of comparatively empty buildings or such as do not admit of being tightly closed, as high as two or three pounds of the bisulphid are absolutely necessary. In case building cannot be made reasonably tight, as high as four pounds would probably prove ineffective. It should be remembered that a second, and sometimes a third, fumigation is required.

For treating a building with this or other fumigant it should always be made as nearly air-tight as possible. Broken window glass should be reset, doors and windows should be made to fit snugly, and cotton batting forced between window sash by means of a case knife. Cotton batting is also about the best substance for closing other apertures. In some cases holes may be conveniently covered by paper saturated with water. A very rigid examination should be made of every portion of the building to see if there is no possible outlet for the gas, for it must be always remembered that the effectiveness of this remedy is in direct proportion to the tightness of the building. Rat holes in the floors, ill-fitting transoms, stove-pipes and other apertures through which the gas can escape militate strongly against the effectiveness of any fumigant that can be used. Another point should be observed; it is not desirable to fumigate during a high wind nor at a low temperature. When insects are torpid, as most are apt to be under a temperature of 50°, they are little affected by the gas and a strong wind would reduce the effectiveness of any ordinary fumi-

gant from 25 per cent to 50 per cent, according to the tightness of the building being treated.

A good time for fumigation is during daylight on a Saturday afternoon as soon as mill hands and other workmen leave the building, or about day-break Sunday morning, the precaution being taken to arrange all details before hand for applying the bisulphid and to promptly close doors and windows and to station a watchman without to prevent any one from reentering the infested buildings. It is always best to begin in the lowest story and work upward to escape the settling gas. In some cases it is even necessary to leave by the top windows by means of a ladder so as not to be exposed too much to the gas, since it is somewhat harmful to man. It is not very dangerous, however. Where it is possible to expose a building forty-eight hours this should be done. At least twenty-four hours exposure should always be maintained.

After fumigation the building should be aired and the grain stirred until the gas, which is quite volatile, has disappeared.

The price of bisulphid of carbon varies from fifteen to thirty cents a pound at retail to about eight or ten cents a pound in fifty-pound cans at wholesale. A grade known as "Fuma-Bisulphid," guaranteed of unusual purity, is much used. In buildings

been developed in that city. In the purification of gas, it is explained, iron filings mixed with shavings from the planing mills have been used in the "washers." In this apparatus the sulphur in the gas is arrested and converted into sulphates and sulphuret of iron. With the light pine chips, the mass would sink into compact form, making the passage of the gas through it difficult and uncertain and requiring frequent renewal. The first experiment with the crushed corn cobs in place of the shavings was a success, the numerous interstices permitting the easy movement of the gas and the rapid oxidation of the iron by the free oxygen of the air. Gas heavily charged with sulphur from the retorts was found to be entirely freed from that objectionable element, and the washers remained in working order for months, where the old process became exhausted in weeks. The process of converting the cobs into shavings is inexpensive, and may be readily attached to any small elevator in the country towns. The cobs for this purpose are said to be worth \$10 a ton crushed.

A NEBRASKA MILL ELEVATOR.

Johnson & Johnson, who operate the Holdrege Roller Mills at Holdrege, Nebr., operate as grain



JOHNSON & JOHNSON'S ELEVATOR AT HOLDREGE, NEB.

that can be made nearly air tight the cost of treatment is from ten cents and upward for each ton of grain.

CAUTION.

The danger of bringing any form of fire, even a lighted cigar, where the fumes of this chemical are being given off is well known; hence, the absolute necessity of keeping a watchman outside of the building throughout the fumigation. A single case of injury through this cause has recently been reported to the writer and may be mentioned here as a warning to others. A car had just been fumigated and the force engaged in the work had just left the car when an outsider with a lighted pipe in his mouth poked his head into the open car, with dire results. The man was not killed, but had a narrow escape, and the railroad company, of course, paid heavy damages. Electric lights should be cut off in buildings about to be treated. Steam should also be avoided, as hot steam pipes are apt to cause overheating, and electric fans are a source of a certain amount of danger owing to their sometimes giving off sparks. Indeed, no heat of whatever sort should be present in the building while exposure to this gas is being made. The owners of the adjoining premises should be admonished of the nature of the work and the danger and it is customary to place danger signs on all doors. If these precautions are properly observed there is no danger of injury to human life nor of conflagration; in fact, none of the latter accidents have been reported as far as the writer knows.

Corn cobs are again talked for use in the purifying of ordinary illuminating gas; and the Nonpareil newspaper of Council Bluffs states that a corn crushing industry based on that use has already

buyers the attached elevator also, which appears in the right foreground of the picture.

The house is 30 x 36 feet in size and 35 feet high to the square. It contains 13 bins holding 25,000 bushels. There are three dumps, and the machinery equipment is operated by electric motors.

The elevator completes the mill plant and of course is operated for the benefit of the mill chiefly, although the owners in ordinary seasons handle a large amount of wheat for the general trade.

GERMAN CONSUMERS ANXIOUS.

The German consumer, who has begun to feel the pinch of scarcity occasioned by the bounty stimulus to the exportation of wheat and wheaten flour, is getting uneasy; and during the recent advance in wheat prices the world over, some fifty members of the Reichstag had a resolution asking an amendment to that section of the German tariff law which encourages the exportation of grain. The law permits a dealer who exports grain for sale on commission to import an equal quantity later free of duty. As a result large quantities of cereals frequently are exported when there is a large foreign demand, the German market having to be supplied later with imported wheat, which is sold to the consumers with the full protective tariff duty added, which, however, is less per bushel than the drawback allowance. The difference is slight, but enough to leave a profit on the transaction. A comparison of the prices ruling in Berlin, Chicago and Liverpool shows that the price of wheat in Germany is higher than in any other country. The proposed amendment is strongly backed and will be forced to consideration at the present session of the Reichstag.

[For the "American Elevator and Grain Trade."]
UTILIZING A LEAK.

BY GUIDO D. JANES.

Pad Armour was the surliest man in West Quincy week before last. Yes, he was so surly that a misanthropist looked like an angel beside him. Ordinarily Pad was O. K., from a character standpoint; agreeable, gentle and amiable; but when the railroad sent him ten cars with which to haul his wheat from his home town to a semi-public elevator over in Friendsville, he temporarily changed his disposition. Why? Because the said cars leaked both at the top and bottom, were shackley, full of king bolt holes, while the brake shoes were cracked. The local agent, yard master and yard clerk apologized to Pad for coming across with such bum rolling stock; but this did not mend matters.

"Well, I guess I'll have to use them," he remarked to his partner, Rudge. "I hate to do it, but they want some wheat from our elevator for theirs at once. I am going to do this, though; I am going along with the ten cars and in case of trouble or wet weather, I can hold an umbrella over the roofs."

"Good plan," said Rudge. "Want my umbrella?"

"Yes, if you please."

"All right. I'll have our house foreman load the cars at once. We have just about enough in our annex bins to fill the ten alleged cars."

So the grain was loaded on the rolling stock after being weighed, inspected, etc., after which Pad having procured the umbrella boarded the manifest. Ten minutes later it was attached to the through freight and the journey began.

All went well until after the junction was passed, then Pad noticed that the car upon which he was



IT SOUNDED EMPTY.

strolling over the right of way sounded empty. Without pausing to study over the matter, he crawled in through an end door and found that there was not a vestige of wheat in the immediate vicinity.

Naturally it made him angry, and for a few moments he was undecided whether to step off the car and slaughter himself or resort to some scheme. He chose the latter.

Placing his umbrella behind the lining so it would not leak out and be lost, he crawled into the next car in the rear, and pulling up a board on the

floor which he had placed there but a few hours before, saw the wheat was dripping out in the proper manner, and quickly put it back again. This being done, he improvised a suction system with the air brake to answer the purpose of an elevator, and let it down immediately over the rail near the rear trucks.

He then removed the board again after digging it out, and permitted the wheat to sprinkle over the rails.

"The grain will all leak out anyhow before I reach



"YOU ARE A GENIUS, MR. ARMOUR."

Friendsville, and why not utilize said leaking and turn defeat and deficit into victory and riches?"

Meanwhile the suction system was gathering up the mashed wheat after it had been run over by four wheels and was depositing it in the empty car ahead. Here it leaked out again was gathered up again by the aforesaid suction. At each operation the journeying of the train removed the bran and other stuff.

When the end of the division was reached Pad hastily procured some flour barrels and some manual labor and by the time train crews were changed he was ready to stroll along toward the semi-public elevator at Friendsville. Yes, he was ready to carry on his "flour mill" in a calm, diplomatic and dignified manner.

"Hello, Pad," cried Art Plover, the manager of the semi-public elevator, an hour later, when Pad and his manifest arrived at Friendsville. "I am glad to see you and not glad to see you. I wish you had brought flour instead of grain. Our mill had to shut down last night. Our rolls must be reground."

"Will make it unanimous in the glad line," said Pad with abundance of smiles on his face. "I have brought flour."

"Quit your kidding. Here are the bills of lading inside here and it reads in a distinct legible manner that you sent us grain."

"I am serious, see." And shouting to one of his manual laborers to open one of the shackley car doors, he pointed to a bunch of flour barrels. "I started out with grain, but the cars were so bum and leaky that I was in danger of losing all, when

I hit upon a plan—a plan to turn leaks into flour mills, and the air brake into a suction system."

"Hurrah, hip, hip, hurrah," shouted Art Plover. "You are a genius, Mr. Armour. And not only that, you are opportune. I'll make you rich for the invention. Come right in and I'll write you out a handsome check; one that will cover the loss of the wheat that leaked out and did not return."

"How you flatter me, Mr. Plover."

"Well, it is sincere flattery, I want to tell you."

"Oh!"

LLOYDS IS MUM.

Lloyds was recently subjected to an examination in London as to the financial status of its members; but it is saying but little about the results. A notice signed by Sir John Luscomb, chairman, was posted recently in the great room at the Royal Exchange, London, but the full text of it was not allowed to go out for common perusal, that privilege being restricted to brokers entitled to the privileges of the room, and they were bound in honor not to divulge the contents.

Sir John Luscomb has been quoted as saying that the criticisms directed against the Lloyds were due to jealousy on the part of rivals; but Capt. Inglefield, general secretary of Lloyds, said that Sir John merely intended to impute the eagerness shown in some quarters to discuss publicly the supposed troubles of Lloyds to a spirit of business competition; and that he did not aim his remarks at any special interest.

Being reminded that the London Times has printed much serious criticism of the underwriters who had either speculated or permitted their colleagues to do so, he said it was impossible to regulate the private business of all the members of Lloyds. He admitted that some of the members had speculated and had become seriously involved financially, but he said nearly all of these had been found to be solvent. He would not say to what extent they had been helped to make up their balances. "The outside public will not suffer in the least," said Captain Inglefield, as if this finally disposed of the matter, both in an ethical and business sense.

A FLOATING ELEVATOR.

The new floating elevator so long waited for with exemplary patience by the grain exporters of Philadelphia, was put into commission several months ago, as duly reported in these columns. It is the largest in operation at the port, and the lower



PHILADELPHIA FLOATING ELEVATOR.

standing 70 feet above the deck it is able to load grain into any steamship of present size.

The length of the elevator is 98½ feet, with 30-ft. beam, the depth, 12 feet. It is equipped with boiler, engine, electric dynamo for making its run and will transfer 10,000 bushels of grain per hour. The elevator was equipped with its machinery by the Webster Manufacturing Company of Chicago.

Olaf Paulson is now managing the Powers Elevator at Adrain, N. D.

THE TARIFF ON WHEAT.

The making of a new tariff, together with the public discussion of the rise in the price of flour, during April more especially, has united to focus the public eye on the wheat duty, justifying the following quotations of opinion on that matter as expressed during the past thirty days:

"With the duty off," says A. J. Toomey, New York, a pioneer exporter of flour, "American millers would pay as much for Canadian wheat as the Canadians are now getting, and automatically flour would be eliminated from the export markets. This would enable the American mills to keep busy, would halt the rapid building of mills in Canada, where they are now springing up overnight; and—a matter not heretofore properly considered—it would provide enormous quantities of feed and fertilizer materials, which are badly needed for dairy-farming and farming. American farmers surely can see the wisdom of this. It is to their interest that we have an export outlet; it is to their great disadvantage that Canada should be able to make the foreign market with her 100,000,000 bushels of exportable wheat." T. R. Van Boskirck of G. W. Van Boskirck & Co., New York, says: "Our wheat is getting softer constantly and we need the harder Canadian wheat to blend with it. Besides, for the protection of our great bread-consuming population, we must find some means of keeping wheat from going to extraordinary prices. A sliding scale of duty on Canadian wheat, such as France applies, would have the right effect." Iowa's interest in this subject is not very great. Iowa soil now produces little more than ten bushels of wheat to the acre on the average and the value of our wheat crop is only about four per cent of the value of our corn crop.—Dubuque, Ia., *Times-Journal*.

The duty on wheat and other cereals or on any of the food products native to our soil is and always has been an absurdity, and its chief use has been to delude farmers into supporting the policy of protection. While the regular market price is determined abroad by the competition of surpluses, it is subject to more or less fluctuation in the home market by the immediate relation of supply and demand there, and this fluctuation would be reduced to a minimum by the free movement of supply to and from other countries. With no duty on wheat our needs would be more steadily and economically met, and as our surplus narrows or disappears this will become of increasing importance. Furthermore, wheat is the raw material of the milling industry, and it would be an advantage to the country if our mills could manufacture flour out of wheat from any and all sources and distribute it to all markets at home or abroad. The "corn law" feature of our tariff must make itself felt after a while.—New York Journal of Commerce.

"I thoroughly believe it would be to the decided interest of not only the farmers, but the dairymen, millers and users of flour, to have the duty on Canadian wheat removed. It is a well-known fact that the milling industry of this country has been to a large extent eliminated from the great flour-markets of the United Kingdom and the Continent. Entrance of Canadian wheat into this country without duty would place us on a good competing basis for these markets. Then, again, the removal of the duty on Canadian wheat would to a very large extent protect us from congestion of supplies of wheat and from speculative manipulation.—T. C. Estee, manager of the New York office of the Washburn-Crosby Company in New York Journal of Commerce.

"The most effective way to put Patten and his crowd out of business would be to throw open markets to Canadian wheat until the middle of July," said Congressman Scott, chairman of the House Committee on Agriculture. "With the tariff barrier removed Canadian wheat would come into this country in such volume that within twenty-four hours Patten would throw up his hands. The removal of the duty for a few weeks would not injure our farmers in any way."—Philadelphia North American.

It would be much harder to force our wheat prices above their natural basis if the tariff on wheat was removed so that the wheat from across the Canadian border could be brought into our markets. To be sure, wheat in Winnipeg is at this time worth as much as in Duluth, but some time ago, when prices were lower, Mr. Patten would have hesitated in buying unlimited quantities of May wheat had he known that all the wheat from the Canadian northwest would have been delivered to him, in addition to what he estimated as available from our northwest and west, after using what was necessary for bread. Had he been foolish enough to have attempted a corner, the Canadian wheat would have been held and delivered to him instead of being exported as has been the case. Unless it is the wish of our people that we pay more for bread than do any other nations, we should have no tariff on Canadian wheat, for allowing it to enter our country free means that our mills will grind it and export a like amount of flour, except during years when there is a real scarcity, when it will mean bread at reasonable prices for Americans. At all times it will be more effective than any laws in preventing serious manipulation.—Arthur Gillett, Acme Milling Co., in Indianapolis News.

Carl P. Rakau, a German farmer and director of the American Family of Equity, writes Senator Aldrich that the tariff law which provides a drawback on wheat which is imported, manufactured into flour and exported, is no protection at all, but a juggling of the law which enables the millers of the northwest to get Canadian wheat practically free. He insists that the millers should grind the Ameri-

can grown wheat before asking for Canadian wheat. He cites the fact that millions of bushels of wheat are exported every year, and says that if the farmers are protected they will agree to furnish all the wheat the millers can grind.—Minneapolis Journal. "I think it a wise plan to take the duty off wheat," said the grain speculator. "This will have to be done in ten years' time, because the time will come when the United States will not be able to raise all the wheat that is consumed in this country. But if the duty was abolished tomorrow it wouldn't affect the price of wheat 1 cent. I am in favor of taking the duty off all cereals and live stock for the same reason."—Chicago Daily News, April 17.

The oat-producing countries that do anything in the export line are a long distance away from us, and with a handicap of freight and insurance and a duty of fifteen per cent, we ought not be afraid of them, and raise the plaintive cry for more protection. We cannot protect ourselves very well by legislation against the eccentricities of the seasons, and if they are on our side we are not in sore need of protection against foreign competition; certainly not beyond the point at which we now have it. It would take but little more to make the tariff on this grain prohibitive, and then in a tight season we should have neither oats nor revenue. It is ticklish business arbitrarily to increase the cost of a nation's food.—Boston Transcript.

The tariff against Canada to keep her wheat from coming into competition with ours is at present absolutely without effect, as we are compelled to com-

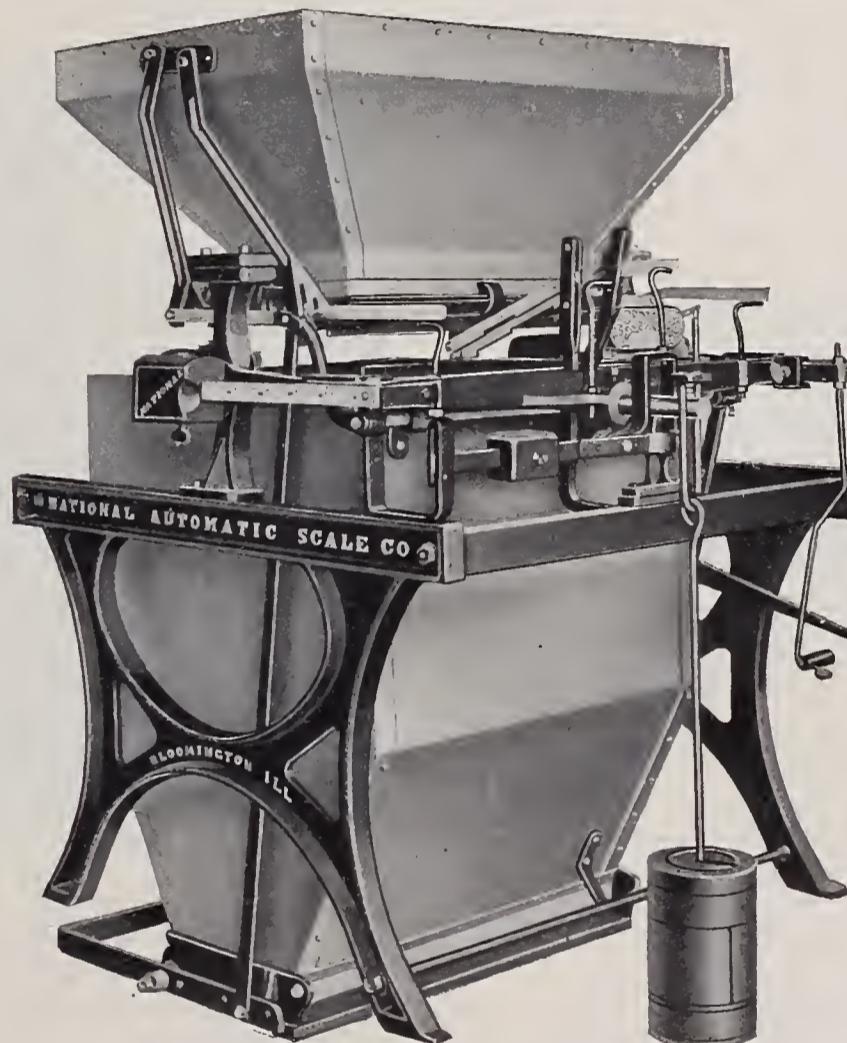
man, woman and child in the country, and which is especially harmful and unjust to the vast army of wage-earners to whom bread is the great food staple.—Bernard J. Rothwell, Bay State Milling Co., Boston, in Boston Morning Globe.

THE NATIONAL AUTOMATIC SCALE.

The National Automatic Scale Co. of Bloomington, Ill., in calling attention to their new improved grain scale, claim many points of superiority. By reason of its simplicity it can be installed by any elevator hand. No additional hopper is necessary above the scale but a small hopper large enough to receive the discharge is necessary beneath it. It is operated by the weight of the grain.

The grain enters the feed hopper and can be taken from the elevator head or bin as desired. Provision has been made for irregular feed, trashy grain, etc.; and it makes no difference about the kind or quality of grain elevated to the scale or the way it is elevated.

The hoppers are made of heavy galvanized iron and will not rust. The grain enters them in such



THE NATIONAL AUTOMATIC GRAIN SCALE.

pete with her products when we export our wheat. It is true that near the border on the Canadian side the price of wheat is often a good deal lower than on the American side. This, however, is due to the inferior means of transportation at that particular point in Canada. The time may not be far distant, however, when we shall produce no more wheat than we need for home consumption. When that time comes the American farmer will demand a protective duty on wheat, and I therefore want to see the duty of 25 cents per bushel retained in this bill.—Congressman Gronne, North Dakota.

The duty on wheat is 25 cents a bushel, which is, of course, a great deal more than the difference between raising the wheat in this country and in Canada. And yet, Senator Aldrich proposes to add 20 per cent to this duty. The rate in the Dingley law being high, and no advance being necessary for protection purposes, it may be asked why increase is ordered?—Columbus State Journal.

With a view of establishing stable conditions in our breadstuff markets, and, under normal conditions, effectively preventing manipulation of "corners," the wheat duty, unless abolished, should not exceed 10 cents per bushel, and should be so regulated as to automatically diminish as the price at the points named advances above 90 cents a bushel, for example, if wheat sells at 93 cents the duty would be 7 cents, if wheat sells at 97 cents the duty would be three cents, and when wheat sells at \$1 or over there would be no duty. This would not prevent the farmer from getting full prices for his product, and the benefit of any legitimate increase in prices based upon a general scarcity, but it would open up to the American consumers the wheat fields of the entire North American continent, and would, it is believed, effectively strangle the pernicious gambling in wheat, which levies tribute upon every

a way as to prevent them wearing out. The main frame is of cast iron and is very solid and rigid.

A grain tester gives a good idea of the scale part of the machine. If it is desired to weigh, say, 200 pounds of grain each weighing, then two 25-pound weights are placed on the poise. These are standard weights, and U. S. test weights placed in the hopper of the scale will balance them exactly. It is possible to weigh any amount from one-fourth pound up to the capacity of the scales when it is not weighing automatically. The system on which the scale is built does away with the handling of heavy weights and also much hard wear on the bearings. The latter are of the knife and pan type, and are made of the very best of steel. They are arranged to adjust themselves, and the full length of the knife rests in the pan, thus making them more sensitive and much more durable, and as good bearings are necessary to good weights, the manufacturers of the National have spared no expense to make theirs the best. The scale will be shipped on 30 days' trial.

Gov. Stubbs, of Kansas, has appointed as members of the state grain grading commission Thomas Page, Topeka; G. W. Glick, Atchison; and J. G. Maxwell, McPherson.

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

RE EXPORT CORN.

Editor American Elevator and Grain Trade: Your letter of March 23rd relative to "Export Corn" was received some time ago, but owing to my absence from the College almost constantly I have been unable to give it attention.

The explanation given in the "American Elevator and Grain Trade" (see p. 490, March number), is essentially correct, except that I would lay more stress upon the kind of corn as the principal factor. The Argentine and Russian corn is a small, flinty, early-maturing variety and gives so small a yield that it would not be profitable to grow for home use. Many of our exporters do not realize the great difficulty in drying the corn sufficiently to stand long shipments.

It is almost certain that our people will not materially change their type of corn, owing to the fact that so large a per cent of it must remain for consumption and that our type produces so much larger yields. It is evident that the real question after all is up to the exporter.

Respectfully yours,

Ames, Iowa.

P. G. HOLDEN.

CORRECTING AN ERROR.

Editor American Elevator and Grain Trade: An item has been going the rounds of the milling and grain journals to the effect that two 65-gallon cans of gasoline were found in the ruins of Edwards & Son's elevator at Webberville, Mich., which was recently destroyed by fire; and that, although the paint was scorched on the outside of the cans, the contents did not burn or explode.

The truth of the matter is that the gasoline was stored in a cement pit outside of the elevator building. The tanks were six feet below the surface of the ground and the top of the pit was protected with a tight two-inch wooden cover. Consequently they were not affected in any way by the heat of the burning building. The only gasoline in the building at the time of the fire was a small amount in a two-gallon can in the engine room. This gasoline was used for priming the engine, and the can containing it was covered with grain before the heat of the fire had a chance to affect it.

Very truly yours, L. H. BAKER,
Ass't Sec'y Mich. M. M. Fire Ins. Co.
Lansing, Mich.

VIRGINIA FARMERS' SPECIAL.

The "farmers' special," or agricultural lecture train, run in Virginia, left Yellow Sulphur Springs Station on the Virginian Railway on April 24, with professors of the Virginia Polytechnic Institute and the industrial agent of the railway in charge. This is Virginia's first "farmers' special," an agricultural school on wheels, to make a trip. The route was from the southwest to southside Virginia and stops were made at various points along the line.

Dean H. L. Price and Professor Carrier were in charge of the horticulture and agronomy car; and Professors Quick and Brainard of the animal husbandry and the dairy department car. In the horticulture section there were spraying machines, spray mixtures and everything to show just how an orchard or vineyard may be planted and grown with the best results. Plants and their diseases received considerable attention in the lectures that Dean Price gave.

In agronomy car space was devoted to specimens of seed corn, samples of various kinds of grain and farm products, about which Professor Carrier lectured.

The thoroughbred cattle in the fourth car served to illustrate the points brought out by the speakers in the dairy and animal husbandry departments. Dr. Walter B. Ellett, of the station staff, gave daily

addresses on "Commercial Fertilizers, Farm Manures."

J. H. FOOTE.

J. H. Foote of Owego, N. Y., is an old-time miller, whose experience runs back to the time when millstones and not rolls were the rule. In point of milling progress this is a long period of time; measured by years, a comparatively short period. By the time rolls had come in and become acclimated, so to say, and Mr. Foote had mastered the art of milling in its newer estate, he left the operative side of the office door and became a flour salesman, which branch of the business of milling he followed for a number of years.

Early in 1891, however, the machinery firm then known as Huntley, Cranson & Hammond, of Silver Creek, N. Y., secured him to sell their line of mill and elevator machinery; and on April 29, 1891, he began his connection with that well-known establishment. The house has since changed its name to the Huntley Manufacturing Company, as it is known today, but Mr. Foote has simply watched its growth from a modest business of twenty years



J. H. FOOTE.

ago to the great concern of today, contributing the while by his industry and success as a salesman to that magnificent development.

Naturally Mr. Foote thinks the Monitor line of machinery is strictly "It"; and expects to see it continue to grow in popularity in the future as in the past.

WISCONSIN GRAIN COMMISSION.

The Wisconsin Grain and Warehouse Commission has been reorganized by the reappointment of H. A. Johnson and the appointment of W. H. Crumpton, of Superior. Mr. Crumpton succeeds Byron Kimball who was a member for several years, one of the original members, in fact. He is a member of the grain firm of Crumpton & Crumpton. J. E. Keran, the other member of the Commission, was recently appointed on recommendation of Gov. Burke of North Dakota to succeed W. C. Macfadden, of Grand Forks, resigned.

The first steamer reported passing through the straits at Mackinac for the present season was on April 14.

For the first time within the memory of the present generation wheat traders, Kansas City May delivery closed on April 29 higher than Chicago, the price there being \$1.22½, as against \$1.22 at Chicago. The showing is a little remarkable in view of the fact that hard winter wheat is the contract grade at Kansas City, and its general quality is counted lower than that accepted on contracts here.

—Record-Herald.

LEGISLATURES

Canadian Parliament.—J. A. Carrie has introduced a bill in the Commons to amend the Manitoba Grain Act, to provide that grain shipped by vessel shall be officially weighed in and out at the terminal elevators.

The intention of the legislation is to do away with the complaints made by vessel owners that they are continually weighed out short by Canadian elevators. The government already provides official weighmasters to weigh in the elevators at the terminal, but does not provide weighmasters at transfer elevators, and the losses occur between the terminal elevators at Fort William and the transfer elevators on the Great Lakes and at Montreal. The bill, provides for an option in that the shippers and carriers by mutual arrangement may avoid these weighing charges if both so elect, otherwise all grain must be weighed in and out.

Congress.—Chairman Chas. F. Scott of the House agricultural committee, writes a Lockport, N. Y., miller correspondent: "It will be impossible for Congress to give any consideration to the anti-futures bill during the extra session, but I expect to take it up as early as possible next winter, and I shall take the liberty of using your letter as an evidence of the sentiment entertained by the real business men who are intimately connected with the industry of growing and manufacture in wheat. We will probably have public hearings, and if so I should be extremely glad if you could find it convenient to appear before the committee personally."

The drawback section of the Payne bill, which permits the Government to give a rebate of duty when imported materials are manufactured for export trade, is not acceptable to the Senate committee on finance. This much was admitted by Chairman Aldrich in response to questions from Senator Nelson, of Minnesota. Senator Aldrich informed the Senate that the committee was not in favor of any material change from the drawback provisions as contained in the Dingley law.

Senator Nelson has informed Northwestern men within the last day or two that he will not favor any extension of the drawback principle. He has intimated that he does not believe the drawback authority as applied to the milling of Canadian wheat for export, should be broadened beyond that now contained in the Dingley law.

Illinois.—A bill introduced by G. W. Wilson of Quincy to prohibit dealing in any commodity for future delivery was advanced on April 30 to a second reading. Adkin's bill (H. 477) prohibiting a monopoly in the buying of grain and making it an unlawful discrimination for the same concern to pay more for a commodity at one point than it pays for the same commodity at other points in the same locality, reached a second reading on April 30.

House bill 617 (Gillespie), amending the public warehouse act so as to prohibit the proprietor, lessee, or manager from storing grain that does not belong to him; also prohibits such proprietor from issuing warehouse receipts for such grain, penalty of violation a fine of from \$1,000 to \$5,000, reached a second reading on April 30.

Other bills in which Illinois grain dealers are interested are as follows:

Senate Bill 161 gives the Railroad and Warehouse Commission power to compel railroads which cross or intersect each other's tracks to put in switching connections, so that there may be an interchange of freight cars.

Senate Bill 170 gives the Railroad and Warehouse Commission power to prevent discrimination in rates and includes express companies under its control.

Senate Bill 171 gives the Railroad and Warehouse Commission power to control the stringing of wires for telegraph or trolley lines.

Senate Bill 172 gives the Railroad and Warehouse Commission power to make and enforce joint through rates, where freight is carried within the state by two or more railroad companies.

Senate Bill 219 gives the Railroad and Ware-

house Commission power to control the issuance of stock, bonds, notes and other evidence of indebtedness.

Minnesota.—[From a Special Correspondent.]—Of the bills affecting grain and warehousemen passed by the Minnesota legislature which adjourned on April 22, the Lennon bill taxing grain and the Bicknell bill for the restitution of illegal freight charges are perhaps the most important.

The Lennon bill, made possible by the so-called "wide-open" tax amendment adopted by the voters just before the legislature, provides for a tax of one-fourth mill on all wheat and flax and one-eighth mill on all other grain handled at elevators and warehouses in the state during the year. This is to be in lieu of all other taxes upon the grain. Under the old law the elevators paid the usual ad valorem tax on whatever grain they happened to have in stock on the annual assessing date.

The Bicknell bill affects not only the grain trade but all shippers in the state. It provides that where a freight rate is in dispute, the carriers shall keep an account of all shipments and charges, and if the lower rate is established by the courts, they shall refund to shippers the difference between the two rates.

S. F. 211, by Thorpe, establishes a flour and grain testing laboratory at the state experiment station. The tests are to be free to the state Grain Boards but a fee of \$3 is provided to be paid by others who want tests made.

H. F. 609, by Lennon, authorizes the Railroad and Warehouse Commission to select and approve a proper sealing device and to require the equipment of all scales under the jurisdiction of the Commission with the same.

S. F. 447, by Sageng, makes the terms of the members of the state Board of Grain Appeals three years and provides that one member shall be appointed each year for each of the Minneapolis and Duluth boards. Under the old law all the members were appointed at once and held for two years.

Other bills which passed were S. F. 434, relating to uniform bills of lading; S. F. 266, relating to storage receipts; H. F. 438, regulating the issuing of certificates of inspection and weight of grain or other farm commodities weighed or inspected under the laws of the state, and requiring such certificates to be delivered to the local buyers of such grain or farm commodity; S. F. 247, requiring terminal elevators to furnish separate elevators for grain when requested to do so; and S. F. 194, relating to the delivery of stored grain.

H. E. S.

A resolution by Representative J. N. Johnson was adopted by the house on April 15, in which that body put itself on record as being opposed to a "drawback" from duties paid on foreign grown wheat, when exported as flour, on the ground that the "drawback" nullifies the import duty of 25 cents a bushel which is now charged on Canadian grown wheat.

OIL-SEED CROPS.

Consul-General William H. Michael sends from Calcutta the following information concerning oil-seed crops in India:

"The second forecast on the linseed and rape-seed crops in Bombay presidency, including Sind and the Native States, for the season 1908-9, shows an acreage of linseed of 122,400 and of rape seed of 186,000. The area of the former represents about 8.3 per cent and the latter 1.2 per cent of these crops in British India. The estimate on the yield of linseed places it at less than half a normal crop, while it is thought that the rape-seed crop will be up to normal.

"The official report places the area planted to groundnuts in Burma for 1908-9 at 199,222 acres, an increase of 10,644 acres over last year. The crop is described as a fair one, but the yield, it is reported, will fall short of the average, and is estimated at 6,643,774 nine-gallon baskets. The districts not furnishing forecasts will probably yield 800,000 baskets, making the total yield of Burma about 7,500,000 nine-gallon baskets."

Send us the grain news of your neighborhood.

ASSOCIATIONS

The Wichita Board of Trade is arranging to hold a two-days' meeting of grain dealers of Kansas in June, probably about the 15th and 16th.

The Directory of Iowa Grain Dealers will be revised at once and published about July 1, 1909, by Secretary Wills, of the Western Grain Dealers' Association.

Chas. F. Barrett, secretary of the State Board of Agriculture, is down for an address at the annual meeting of the Oklahoma Grain Dealers' Association at Oklahoma City on May 19 and 20 for an address on "How Shall We Increase Wheat Acreage in Oklahoma?"

S. W. Strong reports the following names of new members of the Illinois Grain Dealers' Association: Daniel F. Eyrne & Co., Chamber of Commerce, St. Louis; Catlett & White, Fairmount, Ill.; Cochrane Grain Co., 305-306 Chamber of Commerce, St. Louis; Connor Bros. & Co., Gay Building, St. Louis; Goffe & Carkener Co., 514-515 Chamber of Commerce, St. Louis; Harsh Bros. & Co., Merchants' Exchange, St. Louis and Nashville, Tenn.; Hogan Grain Co., Nashville; Kendrick-Roan Grain & Elevator Co., Nashville; Langenberg Bros. & Co., Merchants' Exchange, St. Louis; McLemore Grain Co., Nashville; Miller & Co., Nashville; Owensboro Grain Co., Owensboro; Parrott-Day Co., 320 Merchants' Exchange, St. Louis; Pease & Dwyer Co., Memphis; Caswell E. Rose, Nashville; G. P. Rose & Co., 614 S. Spruce St., Nashville; Rouzer, Sullivan & Co., Nashville; Security Warehouse & Elevator Co., Chamber Commerce, St. Louis and Knoxville, Tenn.; Seale Bros. Grain Co., Chamber Commerce, St. Louis; J. P. Sledge, Broker, Champaign, Ill.; Webb & Maury, Memphis; William & Fitz-Hugh Co., Tennessee Trust Bldg., Memphis; J. W. Wilkes & Co., Nashville; W. H. Crozier Grain Co., Nashville; Williams & Worsham, Nashville; Woods Grain Co., Springfield, Ill.

ANNUAL ASSOCIATION MEETINGS.

The Oklahoma Grain Dealers' Association will hold the annual meeting at Oklahoma City, on May 19 and 20.

The annual meeting of the Texas Grain Dealers' Association will be held on June 4 and 5. At this writing the place has not been determined upon.

The Illinois Grain Dealers' Association will hold the annual convention at Peoria, on June 15 and 16.

The mid-summer meeting of the Indiana Grain Dealers' Association will be held in the Assembly Room of the Board of Trade at Indianapolis, on June 23.

The Ohio Grain Dealers' Association will hold the annual meeting at Cedar Point, Sandusky, Ohio, on June 24 and 25.

The National Hay Association will hold the annual meeting at Cedar Point, Ohio, on July 27-29. Headquarters at the Breakers.

The annual meeting of the Western Grain Dealers' Association will be held in July.

The Grain Dealers' National Association meets at Indianapolis in October. Headquarters at Claypool hotel.

AFFILIATION WITH NATIONAL ASSOCIATION.

Secretary Strong of the Illinois Grain Dealers' Association has addressed the following communication to the executive officers of the several state associations of grain dealers:

A very cordial invitation to attend a meeting of presidents and secretaries of the grain dealers' associations, during the sixteenth annual convention of the Illinois Grain Dealers' Association, to be held in the City of Peoria, in the National Hotel, on the 15th and 16th of June next, is hereby tendered you.

The object of the meeting of presidents and secretaries, being also the subject for discussion, is "The advantages of affiliation of state grain dealers' associations with the Grain Dealers' National Association."

Believing firmly in the great advantages to be gained by all the organizations which work for a common purpose having a general head, such as is the Grain Dealers' National Association, which all may support, and from which all may receive benefit; and desiring only the greatest benefit to all the

trade, would it not be well that all the presidents and secretaries should meet together and consider how best we can be of the greatest benefit to the grain shippers?

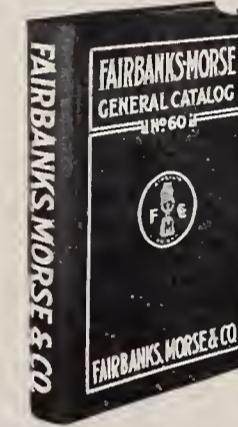
It can truly be said for the Illinois Association, that affiliation with the National Association proved just the balance needed to solidify and strengthen the organization. Since re-affiliation this Association has increased in membership and has been freed from turbulency, for the reason that there was a power to which appeal could be taken; and it has felt the assistance in many ways to have been of benefit.

National questions are piling up many and fast, and must be met; and they will be handled easier by having a general head, ready at all times to speak for the grain trades, and an officer who is well advised of the needs and requirements of each section of the country.

Realizing the advantages gained by a conjunction of a few of the state associations, it is felt that there would great good accrue to all the grain trade did all the associations join their efforts and work in harmony for a common purpose, the common good; and hence this call for a meeting of all concerned.

IMPORTANT CATALOG.

The engraving is a fac-simile of the front and back covers of the Fairbanks-Morse General Catalog No. 60, now ready by Fairbanks, Morse & Co., Chicago. This is the first general catalog covering a majority of the lines carried that has ever been issued by this company. While the catalog does not show all of the machinery and supplies handled by the various departments, nevertheless, the catalog



covers 656 pages of which the index alone covers 22 pages two columns to the page. The space devoted to scale and gas, gasoline, alcohol and kerosene engines and electric motors is 94 pages; and to elevator supplies of all sorts 32 pages. It is a catalog every elevator owner and operator should have at hand. It is beautifully printed on good paper and firmly bound in limp boards.

WHEAT SACKS IN MEXICO.

Consul Arminius T. Haeberle, of Manzanillo, Mexico, calls attention to the fact that recently a great deal of wheat has been shipped to that Mexican port from the states of Washington, Oregon, and from British Columbia, and the desirability of using coffee sack coverings. He writes:

"On several occasions the wheat from the states has arrived in bad condition compared with that from British Columbia, due to the sacks being sunburned and rotted and not standing a second handling. It would be better to use coffee sacks, as these could be sent to Cordova, state of Veracruz, and used for coffee shipments to the United States. As it is, duty is paid on old sacks, which are worthless after reaching their destination."

"If good coffee sacks can be obtained for 10 cents, the consignee could still sell them at a profit after paying the duty as on wheat of one-half cent per kilo (2.2 lbs.). Coffee sacks can be sold here for 42 cents Mexican or 21 cents American currency, but if for any reason they do not command the same price in the coffee districts on the east coast and the cost in the States exceeds 10 cents, they might still be sold at a good profit."

"It is essential, whatever kind of sack may be used, to avoid the loss resulting from bad sacks, which, I am informed, amounts in some cases to 1 per cent, and a continuance of which may prove unfavorable to American exporters."

FIELD SEED SECTION

[Bul. 83, Okla. Agr. Exper. Station.]

ALFALFA SEED IN OKLAHOMA.

BY L. A. MOORHOUSE, AGRONOMIST.

AND

W. L. BURLISON, ASSISTANT AGRONOMIST.

Since June, 1906, the Department of Agronomy of the Oklahoma Experiment Station has tested more than 400 samples of alfalfa seeds for the farmers of this state. During the progress of this work much interesting information has been gathered, the results of which will not only be instructive to alfalfa growers, but they will also be of considerable value in helping to raise the standard grades of alfalfa seed which are sold in Oklahoma.

At this season of the year much advice is sought with reference to methods of preparing the soil and sowing alfalfa seed, and the grower exercises good judgment when he investigates the best known plans before the seed is sown. But even after these factors have been guarded from every possible viewpoint, the entire problem has not been solved. *The seed itself represents unknown powers and energies.* We can measure the germinative ability of a given lot of alfalfa seed by subjecting representative seeds to a test, the results of which will determine with some accuracy whether the seed will respond under normal conditions in the field. However, many samples of alfalfa seed are not entirely free from weed seeds, and many of these seeds are noxious in character and should not be sown in our cultivated fields. The Experiment Station has provided a laboratory in which alfalfa seeds may be tested and weed seeds identified, and as this examination is made without cost to the grower only selected alfalfa seed should be planted in Oklahoma.

TESTING ALFALFA SEED.

A Simple Test.—It will remain for the seed expert to make decisions concerning the noxious nature of many types of weed seeds, but to determine the viability of the alfalfa seed does not demand expensive apparatus. The grower can make such a test with a few simple pieces. After counting out one hundred typical seeds from the sample, place these seeds on a moistened piece of blotting paper, which can, in turn, be laid on a large dinner plate. The alfalfa seeds should then be covered with a moist sheet of blotting paper; fold the corners of these pads so that they will not extend beyond the edge of the plate, then turn a second dinner plate over the sheet to prevent undue evaporation of moisture. A temperature of 70 degrees Fahrenheit is necessary for rapid germination. Within five or six days the seeds will be sprouted enough to permit counting and the actual strength of the seeds can be ascertained. The seeds in the accompanying illustration show a germination test of 95 per cent. Such seeds should be classified as fancy when judged from a vitality record only.

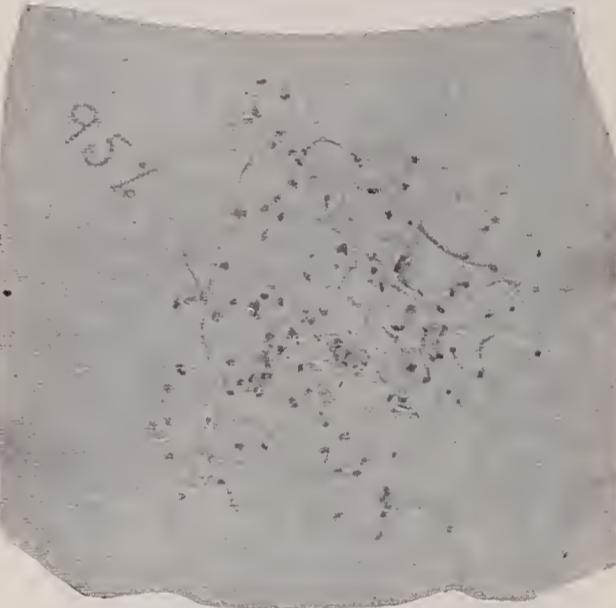
The Station Method.—The methods followed by the Station in testing alfalfa seed are very simple. Ten grams of the original sample are taken for inspection. This portion is separated into two parts:—pure seed and impurities.

Germination tests are made by counting out two lots of one hundred seeds each. These lots are then placed between moistened sheets of blotting paper, and are allowed to remain in a warm room for six or eight days when the final results are recorded.

The impurities found in alfalfa seed naturally fall into two groups:—weed seeds and inert material. Weed seeds are classified by means of a microscope together with samples of weed seeds which are kept in the laboratory for comparative identification. Weed seeds cause a much greater loss than the inert material, because the labor expended in fighting the plants which come from such seeds is enormous. Inert material is composed of broken sticks, broken seeds, and sand. The loss incurred through the presence of inert material varies from an insignificant amount to twenty pounds in every one hundred pounds of average alfalfa seed.

Seed Selection.—Good seed is an important factor

in securing a perfect set. It sometimes happens that the alfalfa seed which is sold to the trade is almost worthless. Some samples have come to the laboratory containing as much as 50 per cent of impurities. One sample carried thirteen different kinds of weed seeds. It is obvious that no purchaser would be satisfied with a sample which contained fifty per cent of impurities. *After careful consideration we have reached the conclusion that it is not a wise plan to keep or use alfalfa seeds which contain any noxious weed seeds.* It is even doubtful whether one ought to sow alfalfa seed which contains a large per cent of seeds coming from weeds more or less common where the alfalfa is to be grown. The excuse has been suggested that these noxious weeds are already growing in the district, and it is therefore needless to take any precautions with regard to a further distribution of such seeds. In some samples enough crab grass seeds were found to furnish one acre with one plant for each square foot; foxtail seeds were present in one sample in quantities sufficient to start one plant on every eighteen inch block; two other samples contained enough plantain seeds to start one plant on every square yard. Our basis for this calculation includes the



A TEST OF ALFALFA SEED.

use of eighteen pounds of alfalfa seed per acre. It is evident that higher standards of purity should be demanded if greater returns are to be secured for the labor and management required to operate a large alfalfa farm.

Grades of Seeds.—The grades of alfalfa seed offered for sale might be greatly improved through the judicious use of the fanning mill. At least 50 per cent of the samples tested at the Station could be graded up several degrees with proper sieves. It is an ordinary occurrence to find that a large portion of the impurities present in alfalfa seed are composed of broken sticks and sand as well as broken alfalfa seeds. These broken pieces may be removed quite readily with an efficient mill or seed grader, and this extra work will assist in reducing the bulk of the sample. The intelligent buyer prefers to set a reasonably strong bid on a first-class grade of seed rather than make even a low offer for a sample composed largely of an abundant supply of refuse. It is true that there are certain weed seeds which grade in size and weight about the same as alfalfa seed, and it is a difficult matter to sift or blow out such material. Under these conditions the grader will not be of material value. In such cases a different grade of seed should be selected especially if the weed seeds present are known to be a pest. It will be interesting to note that thirteen per cent of the impurities of a certain sample were taken from the alfalfa seed, and when this material was removed, the seed was given a much higher rating.

The purity question is not the only perplexing problem connected with the selection of good seed. Several samples have been analyzed which were almost free from inert material and weed seeds, but

they gave a very low vitality test. Some of these tests are shown in subsequent tables.

HIGH PURITY TEST; MEDIUM GERMINATION TEST.

Sample.	Purity.	Germination.	Kinds of Weed Seeds.
1	100	80	No weeds
2	100	70	"
3	100	75	"
4	100	85	"
5	100	89	"
6	100	87	"
7	100	89	"
8	100	77	"
9	100	90	"
10	100	92	"

It will be observed that three samples germinated less than 78 per cent; and six out of ten germinated 85 per cent or above. No weed seeds were found. Sample No. 2 contained alfalfa seeds which were comparatively weak. The maximum test did not run above 90 per cent.

HIGH PER CENT OF IMPURITIES; SATISFACTORY GERMINATION TEST.

Sample.	Purity.	Germina-	Kinds of Weed Seeds.
11	90.8	96	No weeds
12	70.0	97	Plantain, green foxtail, white clover
13	91.0	82	Green foxtail, lambs quarter
14	75.0	86	Plantain, pigweed, green foxtail
15	80.0	90	Pigweed
16	90.0	84	Old witch grass
17	50.0	92	Pigweed, lambs quarter
18	75.0	81	Green foxtail, old witch grass, crab grass, lambs quarter
19	89.0	83	Careless weed, smartweed
20	80.0	84	Lambs quarter, pigweed, Russian thistle

Sample No. 11 contained approximately 10 per cent of impurities; however the alfalfa seeds gave a high germination test and the sample was free from weed seeds. Samples 12 and 14 contained seeds of plantain or rib grass, a weed which is giving trouble in some districts. Where the alfalfa sample shows a high percentage of impurities, it is important to determine whether these impurities are made up of noxious weed seeds or whether they contain merely inert material. One sample in the above list, No. 17, was made up of one-half foreign material, but it contained only three kinds of weed seeds.

LOW PER CENT OF IMPURITIES; GOOD VITALITY; SOME

Sample.	Purity.	Germina-	Kinds of Weed Seeds.
21	99.75	96	Centaurea repens, roquette
22	100.00	95	No weed seeds
23	99.50	93	Green foxtail, yellow foxtail, plantain
24	100.00	92	No weed seeds
25	100.00	93	No weed seeds
26	99.75	93	Centaurea repens
27	100.00	96	No weed seeds
28	99.75	96	Plantain
29	99.75	95	No weed seeds
30	100.00	94	Plantain

Practically all of these samples, Nos. 21 to 30 inclusive, were taken from imported seed. They are rather unusual in that the purity tests are exceptionally good and the seeds show excellent germinative power. Not a single sample fell below 90 per cent. Nos. 22, 24, 25, 27, and 29 were free from weed seeds. Some of the weed seeds which were found in the remaining samples are classified as coming from noxious weeds. This is a very objectionable item. While imported samples have given good results in the laboratory, it may be stated that noxious weed seeds frequently make their appearance in such samples.

HIGH PER CENT OF IMPURITIES; LOW GERMINATION TEST.

Sample.	Purity.	Germina-	Kinds of Weed Seeds.
31	58	17	No weed seeds
32	70	40	No weed seeds
33	70	30	No weed seeds
34	60	20	No weed seeds
35	65	30	Plantain, careless weed, crab grass
36	60	73	Green and yellow foxtail, pigweed
37	75	60	Plantain, pigweed
38	70	50	Plantain, pigweed
39	60	70	Plantain, green foxtail, crab grass, self-heal
40	88	55	Old witch grass, green foxtail, pigweed
41	88	65	Yellow foxtail, lambs quarter
42	80	35	No weed seeds

These are all low grade samples. They not only contain a high percentage of impurities, but they also made a very low record from the standpoint of viability. Several of the lots were free from weed seeds, but even this characteristic would not warrant the grower in selecting such types, because a full set would be almost out of question with such seed. Other samples in this lot gave a low purity test, an exceedingly low germination test, and carried foul weed seeds. As long as such grades continue to have a place on the market, the grower

ought to examine the seed thoroughly before deciding to make a purchase.

Out of four hundred samples which have been examined not more than twenty combined a high purity test with a vigorous germination record.

[To be concluded.]

SEED VITALITY.

According to a Paris cable Antoine Henri Baguerel, physicist, on April 20, reported before the Academy of Sciences a most interesting demonstration of the life of seeds.

Submitted to powerful life destroying tests, drying in a vacuum at a temperature of 253 degrees below zero they retain their germinating force.

The conclusion drawn by M. Becquerel is that "life is not a mysterious principle, but a simple physical and chemical function of an organism produced by the substances and forces of its cosmic environment."

NEW STATE SEED LAWS.

The Callan seed bill has been passed by the New York legislature.

The new pure seed law of North Dakota, heretofore referred to in these columns, will go into effect on July 1 next.

The Paulhamus pure seed law of West Virginia will go into effect in June, 1909. The law does not affect garden and flower seeds, but applies to field seeds alone. The purchaser is protected against misnaming of seeds; Kentucky bluegrass must be Kentucky bluegrass, to the extent of at least 80 per cent of the contents of the package and it will be considered adulterated if it contains more than 5 per cent of Canadian bluegrass. All seeds permitted to be sold in the state must have a large percentage of viability—they must be germinable.

HOW TO GROW SEED CORN.

BY G. I. CHRISTIE.

Professor Purdue Experiment Station, Indiana.

Under average methods of seed selection and field conditions there is from year to year more or less deterioration in all varieties of corn. This "running out," or "losing in quality and producing power," of a variety is largely due to mixing and careless selection.

Corn growers are also finding that much trouble and loss is resulting from seed corn harvested late in the fall. They recognize that the best results can be obtained only when the seed is selected early and stored in a proper manner. For these reasons corn growers should employ methods in selecting, planting and harvesting which will give seed of the highest quality and strongest vitality.

One way in which every corn grower can do much to improve and maintain the quality in a variety of corn is by planting a seed corn patch. For this patch he should select about twenty-five of the best and most typical ears of corn of the seed to be planted this year. A germination test should be made of each ear in order that no weak ears may be planted. Shell off and discard the small and irregular butt and tip grains. Then shell the ears together and mix thoroughly.

At the usual time of planting plant this corn on the south or west side of the field to be planted with the same variety. This location should be changed if it is near a field planted with another variety. Give this patch unusual good cultivation, keeping the ground free from weeds and preserving a loose soil mulch.

When the corn is five or six inches high go through the patch and remove all weak or backward plants. Also when the tassels begin to appear go through and remove all stalks which are either weak, barren, smutted, badly suckered, or for other reasons undesirable. When the corn is mature, and not later than Oct. 15, the seed should be harvested. Select the seed ears from the strongest stalks with the large leaf development and those bearing the ears four or five feet from the ground and holding it in a right position.

Through the seed corn patch the farmer can do much to fix a desirable type in his corn and to reduce the number of barren, diseased and suckered stalks that appear in his field. It also furnishes

him a convenient place from which his seed corn in the fall can be selected and he knows that it is from the best seed that he planted.

DODDER IN ALFALFA SEED.*

The appearance of dodder in clover and alfalfa fields is generally most dangerous to the crop. The ordinary operations of mowing, raking, and hauling tend to spread this troublesome parasite, and with every new center of infection the chances of the crop grow less. A recent circular of the New York Experiment Station at Geneva describes the injury resulting from dodder in alfalfa fields as follows:

"Dodder is a yellow, thread-like twining weed which is exceedingly troublesome in alfalfa fields. It appears in circular spots 3 to 30 feet or more in diameter. At the center of the spot the alfalfa is killed out, while around the margin the ground is covered with a mat of yellow threads which twine closely about the stems of the alfalfa plants and slowly strangle them. The spots increase in size from year to year. Many fields have been completely ruined by dodder. It is not often injurious to other crops (except red clover), but once established in an alfalfa field it is very difficult to eradicate without killing the alfalfa."

As dodder is usually introduced with clover and alfalfa seed, the purchase and use of dodder free seed cannot be too strongly urged. Clean seed, however, cannot always be secured, and therefore cleaning the seed is often necessary. Frequently neither the purchaser nor the seed dealer knows dodder seed, and consequently in many cases the first proof of its introduction is the appearance in the field of the weed itself. In view of these facts, the New York Station recommends that seed be examined before it is sown to determine the presence of dodder.

Alfalfa seed is larger than dodder seed and advantage was taken of this fact by the station to perfect a method by which commercial alfalfa seed may be made practically free from dodder and safe to sow. It was found that dodder seeds are readily removed by sifting through a wire sieve having 20 meshes to the inch. Since ready-made sieves of this mesh are not readily obtainable, it is advised to construct a light, wooden frame 12 inches square by 3 inches deep and tack over the bottom of it 20 by 20 mesh steel wire cloth of No. 34 Washburn & Moen gauge wire. In case brass or copper wire cloth is used the wire should be No. 32 on the English gauge. It is important that the wire cloth used be exactly 20 by 20 mesh. With a sieve of this kind it is estimated that a man can clean from 3 to 7 bushels of alfalfa seed per day. From one-fourth to one-half pound of seed, and no more, should be put into the sieve at a time and vigorously shaken for one-half minute. To make the work uniformly thorough the use of a cup holding not over one-half pound of seed and careful timing of the sifting is recommended. If the seed contains but little dodder one sifting may do, but when much dodder is present, and particularly if it is of the large seeded kind, two siftings, both made strictly as directed, are advised.

In experimenting with this method it was observed that besides the dodder seeds various other small weed seeds, broken seeds, and dirt, as well as some of the smaller alfalfa seeds, were also removed by sifting. The siftings varied from about 1 to 5 pounds per bushel, according to the original cleanliness of the seed and the thoroughness of the sifting. The rejection of the siftings is considered as causing but little if any loss.

CLOVER SEED OUTLOOK.

Michigan is one of the largest clover seed producers. State raised more than Ohio in 1906. Crop has suffered some, but our reports indicate less damage than in Ohio and Indiana, the largest clover seed producers, which generally raise more than all the other clover seed states combined.

Missouri May report makes the old clover seed condition 73 and the new 84. They do not raise much—generally between 60,000 and 90,000 bushels. Timothy condition 87.

*Compiled from N. Y. State Sta. Circ. 8, by the Office of Exp. Stations, U. S. Dept. Ag., and published in Farmers' Bulletin 353.

Northwestern seed firm writes: "We believe the clover through the states of Wisconsin and Minnesota has come through the winter if anything better than usual, as the majority of the clover sections were well covered with snow and we have not had as much of the freezing and thawing weather as usual."

There has been decided crop damage in some of the states. Weather has been cold and dry and appearances may be deceiving in some of the Northern states and Canada. Too early to say much about the European crop prospect.

Large Canadian seed dealer writes: "We have had our own men out over the clover-producing sections. In addition to this we have received reports from a very large number of our country buyers, and we have no hesitation whatever in saying that the prospects for next year's crops so far, are very favorable indeed. This is not 'bear' talk. We have sufficient clover seed bought and in our warehouse at the present time, we think, to supply our own trade this season, and one would think from this fact that we would be inclined to be 'bullish,' but it has always been our policy to give the facts as they are, as misleading statements sometimes are dangerous."

London Corn Circular says: "Weather fine and trade is experiencing a good old-fashioned season. Demand brisk with values rising steadily. English reds now coming out rather slowly, but they are filling the demand at reasonable prices. French reds clean and bright looking and selling at moderate values. Americans and Chilians also attractive."—C. A. King & Co. Circulars.

FIELD SEED NOTES.

Alberta seed oats have been in heavy demand in Washington this spring.

The American Seed Trade Association will hold its annual meeting at Niagara Falls, Ont., on June 21-25.

Geo. Born has resigned his position as secretary-treasurer of the Manitowoc Seed Co., Manitowoc, Wis., and is succeeded by L. H. Vetting of Fond du Lac.

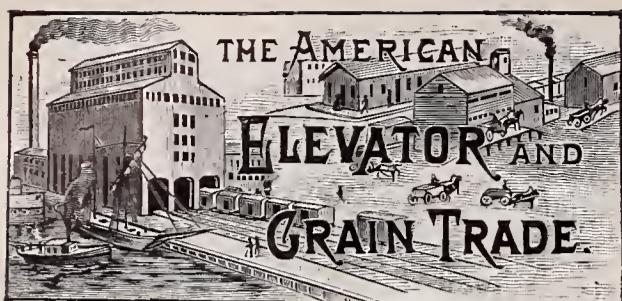
O. S. Jones & Co., seed dealers at Madison, will remove to Sioux Falls, S. D. A new storage and office building 44 x 150 feet in size, three stories high, will be erected this summer.

Fred W. Case and H. L. Cumming have purchased an interest in the Fredonia Seed Co. of Rochester, N. Y. Frank M. Roesch is the active head. The company will extend its field of operation.

The imports of clover seed in March, 1909, were 2,355,214 lbs. (free of duty), against 2,081,755 lbs. in 1908. For the nine months ending with March, 1909, they were 10,640,943 lbs. against 17,456,596 lbs. in same months of 1908. The exports for the nine months ending with March, 1909, were 55,590 lbs. against 28 lbs. same months of 1908.

A sale of No. 1 white oats was reported at Portland, Ore., April 8, at \$40 a ton, the highest value ever reported there. Oats supplies are very short, and it is stated that within a fraction of this figure has been offered for gray oats, although there is usually a differential of from 50c to \$1 a ton between the white and gray in favor of the former.

Western seed dealer says to buyers: "No bigger question is before the farmers right now than that of pure clover seed. There is no sense in buying poor clover seed and no need of it. If you will spend fifty cents on a small microscope or a few cents on postage stamps getting samples and sending them to your state experiment station, you will learn a heap about clover seed. Don't buy without strict examination. Bad weeds are found almost anywhere and may be encountered where least expected. The worst offenders are dealers in small towns, who handle seed as a side line. The regular seedsmen know the business; have fine machinery for cleaning seed and a reputation to maintain; and therefore are more likely to have pure seed. You get more clover seed to the dollar in the high grades, anyway, to say nothing of the freedom from weeds."—C. A. King & Co.



PUBLISHED ON THE FIFTEENTH OF EACH MONTH BY
MITCHELL BROS. COMPANY
(INCORPORATED)

OFFICE:
Manhattan Building, 315 Dearborn Street,
CHICAGO, ILL.

HARLEY B. MITCHELL.....Editor
A. J. MITCHELL.....Business Manager

Subscription Price, - - - - \$1.00 per Year
English and Foreign Subscription, - 1.75 " "

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, MAY 15, 1909.

Official Paper of the Illinois Grain Dealers' Association.

ILLINOIS STATE MEETING.

The directory of the Illinois Grain Dealers' Association and the Peoria Board of Trade have conspired together to make the coming annual meeting of the Illinois Association the most successful business and social reunion the Association has ever enjoyed; and A. G. Tyng and J. H. Ridge of Peoria and Secretary Strong have been appointed as an executive committee to "deliver the goods."

The first session of the convention will take place at 1:30 of June 15, the feature of which, aside from formal association business, will be an address by Prof. Hopkins of the University of Illinois on "Soils Investigation and Crop Experiment Work," in which he will explain how farmers may produce a hundred bushels of corn and eighty of oats per acre. On June 16, at the morning session, Hon. W. R. Bach of Bloomington will expound clauses 1-5, Sec. 118, Ch. 114, Revised Statutes of Illinois, relative to the shipment of grain—shipper's legal rights and duties—an address that alone will be worth the "price of admission," measured in cold cash.

There will also be business enough of the Association to make it desirable for every member to be present and assist the management with his personal advice and counsel. But as business to the traveler is wearisome, the sessions will be made as short as possible consistent with justice to the work in hand, and time will be given all to see Peoria and her various sights, which are not inconsiderable.

Then on Tuesday there will be a luncheon at the Peoria Country Club and Tally-Ho ride for the ladies; while on Wednesday the entire party, ladies and gentlemen, will participate in a ride of about one hundred miles on Illinois River on the steamer *David Swain*, a boat that is authorized to carry eight hundred passengers

and is especially fitted up for the excursion service. In the evening of June 15, beginning at 7:30 o'clock, there will be a smoking concert under the direction of C. S. Burdick of the Commercial Club for the men, at which all will be permitted to talk shop or anything else *ad lib.*

This is but an outline; but it ought to appeal to members of the Association with force enough to take them to Peoria. Many members have already declared their intention to do so; but if all members expect to get the most that may be gotten out of association work, they ought to attend the annual meetings in person and show their interest and belief in the work.

TERMINAL ELEVATOR INSURANCE.

One striking feature of the list of insurance policies carried on the grain contents of Ill. Cent. Elevator B was that out of 153 policies only six were for sums of \$10,000 and upwards; two being for that sum, one for \$15,000, one for \$20,000 and one for \$24,000, while London Lloyd's carried \$366,250 out of a grand total of \$816,000. A number of the policies represented only small amounts, seven being for only \$500 each, and 67 others for but \$2,000 and under.

The fact gives one an inkling of the difficulty encountered in placing insurance now-days on that type of elevator—wooden construction; and the destruction of the house with at least 75 per cent loss to the companies will by no means lessen that difficulty in the future. This house was a well constructed one for a wooden house; and it had full quota of apparatus for protection against fire, such as standpipes and hose, water barrels and pails, screens on windows, automatic journal alarm system and the rest, as required by the insurance engineers; but a bolt of lightning was the "unexpected that happened" and the house burned. The loss on machinery and fixtures was represented by 37 policies, only three of which were for sums greater than \$1,500, while 29 were for sums under \$1,500.

Existing wooden houses of the very highest physical condition may continue to get insurance to protect them; but it is safe to say that every fire of this kind will amount to a step nearer the time when literally fireproof houses only will be accepted as risks at any rate; while the owner of a first-class modern fireproof house ought not to care whether he can get insurance or not—since he ought not to need any.

IS IT CONTENTMENT?

Is there such a thing as true contentment in business? Is there a man who has reached the absolute, so far as this world's goods are concerned, beyond which there is nothing? One may well doubt it. But if there is such a man in the grain business, it must be he who neither reads the trade papers nor takes any interest in association work, local, state or national. These things are for dealers for whom there is no ultima Thule in trade conditions so long as there remains anything that can be made better for self or others.

"Two things should be religiously shunned by the contented dealer—trade papers and dealers'

associations," says a wise contemporary in the implement line. "These things make for progress, and progress stops at contentment; but the dealer who is not contented, who wants to place his business on a higher plane, should support both—as a subscriber to one and as a member of and worker in the other."

THE PATTEN "CORNER."

Only as a "matter of record," for use when in some future age the antiquary may consult the files of the "American Elevator and Grain Trade" for data, is it necessary to here allude to the "Patten Corner" which has so greatly distressed Secretary Wilson of the Department of Agriculture, numerous members of the clergy, some legislators and many newspaper editors, whose sympathy for the poor bread-eater was extremely touching if not very intelligently expressed. There was much editorial concern for the "ultimate consumer" seeking expression during April; and the existence of a bull movement in wheat at the time offered to many editors a chance to take it all out on Mr. Patten in lieu of some one or something else; which was very convenient.

But such notable bears as Secretary Wilson have not yet proved their contention that Mr. Patten has been "running a corner" by producing for consumption that abundance of wheat they have told us is in the country; for while the Patten house took about 2,100,000 bushels of wheat on May 1, not a bushel was delivered at Minneapolis or at other exchanges where millers are paying a high premium for milling wheat. It is quite to be regretted that the professional teachers of the people, like the preachers, at least, do not take the precaution to be exactly informed on matters not naturally within their jurisdiction, instead of accepting unhesitatingly the froth that permeates the average daily newspaper, which is quite as ignorant of natural causes for striking phenomena as the men of cloth are unfamiliar with the ways and wiles of the reportorial method.

MEASLES IN ILLINOIS.

The Illinois House of Representatives is going through the usual outbreak of "economic measles" at this session; and so has advanced to a third reading Wilson's (Quincy) bill to forbid all trading in commodities for future delivery and to make it a felony punishable by imprisonment from one to fourteen years for any person "to sell or agree to sell a commodity of which he is not in possession."

Of course, Mr. Wilson's bill doesn't mean what he thinks it does. He has his eyes on the spot-light and cannot see that there are other spots. He does not see that a country grain dealer may find it advisable to contract in May with a score of farmers to haul him in 10,000 bushels in July and in May sell the stuff "of which he is not in possession" for July delivery. Or the farmer's wife may agree to sell Mr. Wilson for family use certain butter to be delivered in weekly lots for the future six months; both of which class of short sellers and buyers, dealers, receivers, farmers' wives and Mr. Wilson, would subject themselves to the penalties of this bill and become liable to heavy fines and long terms of penitentiary imprisonment.

Mr. Wilson and the House think they see something fierce. It appears like Mr. Patten or the wicked speculator who stands willing to buy the farmers' grain at a high price and hold it subject to all the risks of a mistaken belief as to the quantity there is of it in the world; but to Wilson et al. they have a "questionable shape" with "intents wicked," and they are prepared to slash at these spectres with a knife without taking thought that they might turn out to be friends and benefactors. Such things have happened. Congress once took a similar cut at Jay Gould and closed the Gold Exchange only to open it with precipitated haste a few days later in order to prevent national commercial disaster.

THE LIGHTNING RISK.

The lightning risk is in evidence again, the first "crack" for the season taking about a million. In the country many farm buildings have been burned by this cause, and one elevator at least has been hit, although no report of elevator fires from this cause are as yet reported. But as has been mentioned several times before in these columns, lightning has a particular affinity for country grain elevators on account of their comparative height and their exposed situations.

There is but one way to avoid this danger of fire, and that is by rodding the premises. There are of course good and worthless rods, and the itinerant lightning rod man is usually one well sophisticated in this world's wiles; but a careful business man may easily draw the line between the honest and the dishonest or protect himself by proper contracts with men of known responsibility; so that there is really no excuse nowadays for an elevator going up in smoke after a local thunder storm.

THE DOCTORS DISAGREE.

In spite of Secretary Wilson's dictum that this country is full of wheat, the men who handle the world's commerce in wheat persist in discounting his statements. Yet Mr. Wilson, like the rest of the world, indeed, has access to the reports of his thousands of local reporters, state and field agents, the composite opinion of whom is the "Government Crop Report," the basis of his assertion. Is it reliable?

Well, it is certainly a much more satisfactory document than it used to be, as one must confess, but as the growing season has just begun and with it begins a new series of crop reports, it is disconcerting to have it pointed out, as King of Toledo does, that "there is an important difference in all of the May crop reports on wheat condition. They were all gathered at the same time, except in Kansas, which was a week earlier than the National. The state reports are all lower than the National, except Kansas. They compare as follows:

	Ohio	Mich.	Mo.	Kas.	Okl.	Ky.
State Reports	66	78	74	88	74	81
National Reports	70	82	82	84	81	84

"Why should there be such a great difference?" asks King.

Well, the difference is probably such as is natural when two different sets of men undertake to make a concerted guess on the same subject matter, and is what might be expected in the very nature of things. This difference may

be puzzling, but it is not *prima facie* evidence of carelessness or inefficiency or of "doctoring"; but what one does feel like finding fault with is the cock-sureness of the Secretary, who, with all the thunders of an official anathema maranatha, denounces as spurious all those reports that differ from the one promulgated from Washington by his department.

BUCKET-SHOP HIT AGAIN.

The "Odell" bucket-shop aggregation at Cincinnati, one of the most successful and persistent of these parasites, has at last fallen under the condemnation of the law, the successors of the late Wm. J. Odell (who made \$2,000,000 in the business) having been found guilty by a jury in the United States District Court on May 7, of running a "bucket-shop." The verdict is called a clean victory for the Government, which contended that the defendants did not even play the bucket-shop game honestly, but by slow wires and fast wires to Chicago and New York, took advantage of market quotations in closing out trades with their customers.

The verdict will help some to dislodge this type of vultures, but the experience in Chicago, Kansas City, Cincinnati, New York, etc., is earnest that they will never be permanently driven from business until Congress makes the Government constabulary responsible for their annihilation. The Federal bucket-shop law that now penalizes this species of swindling in the District only should therefore be extended to cover the States also; then the "shops" will be routed out just as the lottery was driven from Kentucky and Louisiana.

THE GRAIN TARIFF.

Eastern grain exchanges have begun to clamor for the removal of the duty on wheat, but there seems little or no similar demand in the West. Indeed, many winter wheat and some few spring wheat millers oppose it, while the farmers of course object to a removal of the duty.

The truth is, the time is inopportune for a change. The tariffs on grain were of course originally mere subterfuges, but the day has gone by when they can be pointed to as inoperative, seeing that we have been importing both corn and oats and paying the duty. The time to have agitated a repeal of these tariffs was prior to 1904, when there would have been little other than perfunctory opposition—when, in fact, the necessity of throwing all the wheat grown on the continent into one "pot" to be handled by and through American terminal elevators in the interest of a steady market abroad for both our own and Canada's surplus, would have been an effective argument for repeal. Such suggestion was made then, but no response was made to it. "Let well enough alone" was the general thought then, amid a condition of abundance here that promised no immediate end; and the opportunity went by. It will be a generation at least before this country may be called upon to repeat the experience that led to the repeal of the English "corn laws." For the present, relief from scarcity must come through better farming.

AMENDING THE RAILROAD LAW.

Some of the commercial exchanges have been passing and publishing resolutions counseling conservatism in all future railway legislation, as if there were any visible danger of such legislation now becoming radical, at a time when the radicalism of the immediate past has about spent itself. The danger is rather in a reaction and the disposition to let the Supreme Court "clip the wings" and stop there. Gen. Wicker-sham at the New York lawyers' dinner indeed warned his hearers that this administration has no intention "to abandon in the slightest degree the impartial enforcement of the law or to undo in any degree the splendid work of the last administration"; but the net results thus far since the Hepburn act went into effect have not been very destructive to the railways or beneficial to shippers, except that rebates have probably disappeared.

But the uniform bill of lading and its 110 per cent rate still obtains; the shrinkage clause remains even if it be waived by many roads; demurrage is still an open question, though in abeyance now because of slack business. The Hepburn act should provide for some of these things so as to render railway practice less jug-handled for shippers at a time when again, under the pressure of much business, all traffic conditions may become acutely burdensome.

COMMISSION RATES LAWFUL.

The Minnesota Supreme Court has affirmed the legality of the Duluth Board of Trade's uniform commission rule. The charge for handling grain is not a commodity, within the meaning of the anti-combination law, but partakes more of the nature of wages; and "the right of laboring men to combine for the purpose of regulating wages," the court says, "can no longer be seriously questioned."

The charge that the Board conspired against the complainant, the Farmers' Exchange, is brushed aside, because the Exchange never applied for membership in the Board; and the uniform commission rule is one that does not create a monopoly because "the things done by the Board necessarily promote instead of restrict the grain trade." The court adds:

The Board of Trade neither buys nor sells grain. The members act as the agents of the producers and purchasers of the grain, and the regulation of their commissions for such service can have no appreciable effect upon either the production or the price of the grain.

So long as the rate of commission is reasonable, as it is conceded to be in this instance, it must be for the benefit of the producer to know in advance what it will cost in commission to have his grain sold. A board of trade which requires its members to treat all its customers exactly alike in the matter of charges for services no more destroys competition than does a railroad when it charges all shippers the same rate for conveying railroad freight.

It is the more gratifying to realize that the decision in the case was unanimous—there was no "pull-back" for popular effect.

There is still heard the deprecating argument that the canals have and will have no effect in this country on freight rates; but it is just a little coincidental that the trunk lines east from Buffalo reduce rates on grain as soon as the water routes through Canada are opened for the season.

EDITORIAL MENTION

Note the fact that the Ohio meeting will be held a week earlier than usual; that is on June 24 and 25.

Seed men in Minnesota find the demand for wheat less than anticipated. The farmers evidently saved from their own crop what they needed.

Gov. Stubbs, who has a reputation as the "man who does things," is shaking up the Kansas grain inspection office at least. The next thing is to show us that the service is improved by the shakeout.

Congressman Scott, who wants trading for future delivery stopped, would also suspend the wheat duty to "break a corner" when the price of wheat gets too high. But who is going to say when the mark is reached—the farmer, the miller, or short seller?

A state court at Hebron, Neb., has passed upon the "penalty clause" rule of a co-operative company, holding that the rule does not bring the company within the penalties of the anti-monopoly law of the state. It is understood the case will be appealed.

The C. P. Ry. official reply to the Canadians who want elevators on the Pacific Coast to handle grain in bulk is in line with all the traditions of the Coast—"better to handle export grain in bags." There is really nothing so adamantine as a trade custom.

All efforts to discourage the growing of durum wheat will probably be fruitless in view of the record-breaking prices recently paid for that kind of wheat. That is what impresses most people far more than statements of what will be; and the farmer, at least, is no exception to the majority.

The Cincinnati Price Current's Statistical Annual for 1909, compiled by C. B. Murray, is now ready. The Annual is peculiarly valuable to all who are interested in live stock, beef trade and provision statistics, in the fullness and accuracy of which it is without a rival. The price is 25 cents.

The "diversion charge" is a comparatively new railroad wrinkle in the East, but at Philadelphia alone it is said to be worth many thousands of dollars a month to the railroads. As the Pennsylvania lines are held responsible for its continuance there, the Philadelphia grain men are trying to force this line to abolish the rule by diverting cars to other lines.

The newspapers and ministers who have been telling us that forestalling, buying grain for future delivery, has been responsible for the rise in the price of wheat and bread, and think the Government should stop it all, or fix the prices of commodities, have evidently studied economics in the school of Jack Cade, who declared that when he became king, "There shall be in England seven half-penny loaves sold for a penny and the three-hooped pot shall have

ten hoops and I will make it a felony to drink small beer."

The new grain inspector in Kansas promises to employ only inspectors with backbones—"they must fix a grade and then refuse to argue about it." The new inspector comes from a farm and has all the farmer's belief that the inspectors have been bullied by grain dealers and receivers, and there will be no more of it after July 1. Then there will be a Reform with a big R.

Secretary Coburn of Kansas is out with another of his characteristic brochures entitled "Idylls of Kansas." There's a chapter on the "Where of the Wheat," one on "The Corns that Kansas Farmers Have," "Alfalfa's Affinity," "The Lay of the Helpful Hen," and "The Hog's Happy Habitat." Need one say more, when everything that Coburn does is worth while?

The success of the mutual fire insurance companies accepting elevator, flour mill and grain risks, continues to justify the faith this paper has always expressed in them. The soundness of the system has been demonstrated by more than a third of a century's experience; while the insured of today realize the benefits of that experience in a rate that in probably no mutual company now is as high as 50 per cent of the stock company rates.

The new law in Minnesota levies $\frac{1}{4}$ mill tax on every bushel of wheat handled by elevators during the year ended March 1 of each year. As the grain on hand in farmers' own granaries at a certain date is taxed there also, the law will cause a double taxation of a certain quantity of grain each year. Of course there is a howl from the taxed, especially the farmer, who doesn't like taxes at all. The tax is the more aggravating, as the law was aimed to hit only the terminal elevator.

An effort will be made to hasten the publication of the engineers' report to the War Department on the Lakes-to-Gulf deep waterway project, now in the hands of the Board of Review. It is said the report is favorable to the feasibility of a 14-ft. channel the entire length of the proposed route, although a similar report was to contrary effect. If the report were made at once many preliminaries of the work might be gotten out of the way before the subject is taken up for final legislation at the regular session of Congress.

The American people are getting into a most unwholesome habit of continually appealing to the law, to the President, to this authority and that whenever anything goes on that is new and disconcerting; and it is done by many with all the assurance of subjects of a potentate of absolute power, whose will is law; and yet for the most part were these appeals granted to the extent asked, business calamities would be far more numerous than they are. It is as reasonable to appeal to Washington to stop Mr. Patten from buying wheat as it would be, says the Toledo Blade, "to interfere with the man who deals in land in the same way; with the Washington hotelkeeper who boosts rates during the

inauguration; or with the farmer himself who stores his products in the fall against the better prices of spring."

The grain dealers' associations of the Central States, Illinois, Indiana and Ohio, will all hold annual meetings in June. Illinois comes first, then a week later that of Indiana, and immediately thereafter that of Ohio. These are all important business gatherings, which more especially in the case of Illinois and Ohio will be accompanied by a sauce of good fun and time for genuine recreation. Dealers therefore are again urged to combine business and pleasure by attending these meetings, each of which is open to the dealers of all the three states. In Texas and Oklahoma the meetings will be held in May and June.

State Food Commissioner Abbott of Texas announces his intention to "keep bad wheat out of Texas," and will proceed against elevator men who "add to a food product that which will lower or injuriously affect its quality." It remains to be seen what all this means; but if it means what it appears to mean, farmers who sophisticate their grain will soon wake up to the fact that they will have to keep their unsound wheat, screenings, etc., at home or be heavily docked by the buyers; for if mixing is forbidden by the state food laws, and the commissioners are to become the judges of quality, the mixing houses will do considerably less business than is now done.

The agreement of the C. & E. I. and Rock Island systems for an exchange of traffic with the McKinley system of interurban (electric) lines in Illinois is the signal of a new order of things in electric transportation. It means that the electric roads have ceased to be mere handlers of interurban passengers and that they have entered into the field of freight traffic. Just how much grain this system may be handling in Illinois does not now appear, but it is noticed that in Iowa, in Indiana and northwestern Ohio, at least, these roads are becoming not unimportant competitors for the grain business. To what extent they may take grain directly from the farms will shortly become, if it is not now, a leading question with the country dealers who, we apprehend, will soon have put up to them the problem of handling grain from the interurban cars as well as from farmers' wagons.

St. Louis commission men think that in view of the higher prices of grain and the greater amount of capital required to conduct a receiving business, the commission rates should be advanced by a resort to the device of a commission charge expressed in the form of a percentage on the value of the grain when sold. This might do if the commission charge were paid by the men who actually get the benefit of the higher prices—the farmers. But except in comparatively few instances, the charge is not paid by the farmer, but by the country dealer who stands in the same position as does the terminal receiver. The country dealer, too, handles the grain practically on a commission basis and no doubt would like to increase the margin to meet the expense involved in using more capital in his business; but only in rare instances

would he be able to do this, so sharp is the competition by which he is surrounded.

The effect on New York City of the changed routing of American grain to the consumer—the new outlets oversea, the vastly increased home consumption—is seen in the proposition recently made for the Produce Exchange of that city to sell its present immensely valuable property and to utilize smaller quarters. The membership on the Exchange has fallen off from 3,000 to about 2,200, and seats are worth not over \$350. With the opening of the Erie barge canal some of the old trade may be recovered, but relatively the port is in its permanent decline as a grain market.

The Canadian Reciprocity Conference at Detroit in April was somewhat disconcerted at the outset to receive from the Board of Trade of Montreal a declination of the invitation to take part, the Board saying in substance, that having abrogated the former commercial treaty and having twice rejected overtures of Canada to negotiate a new one, it is up to Uncle Sam himself to approach Canada with due humility, as Canada has found it can "get along very well without better trade relations with the United States." This is more uppish than accurate; but under the circumstances it certainly is up to the United States State Department to get busy.

Nashville, Tenn., is beginning to put on airs as a grain market, and is justified, too, in her pretensions, in view of a business last year of nearly thirty millions of dollars against only ten millions the year before. The city has developed from an important winter wheat milling center to a large distributor of grain also; and has done so by legitimate methods. The city's facilities for handling grain have enlarged with the increasing trade; and shippers have the assurance of the Illinois Grain Dealers' Association, were that necessary, that the men in the trade there are as reliable as their facilities for handling grain are adequate and modern.

The conference called by the officers of the Illinois Association to consider the relations of the state associations to the National Association is well-timed. Certain state associations are still unaffiliated with the National and are contributing nothing to its support, although, whether they realize it or not, they are enjoying the benefit of the National's work. That body and those who pay for its activities do not ask the non-contributors to come in simply as contributors, but to give the national movement the moral support of a commercial and trade interest working as a harmonious whole. The grain trade has not had until of very recent years any considerable influence such as a great body of business men should wield simply because it has represented only a part of the trade, whose opinion could not therefore be cited as that of the entire body of grain merchants. It is still far from being as influential as it might be, either with the public grain exchanges, with our legislatures or with Congress, and the measure of its insufficiency as an expression of public opinion is that of the degree in which it falls short of representing the organized trade

as a whole. Large sections of the country are totally unorganized, and part of that which is organized is only partially so, and does not recognize the National body. The "get together" disposition is general in other trades and industries and the habit is a good one to acquire by the grain trade.

The Illinois Manufacturers' Association takes issue with two Western railway officials of high rank on their recent public complaint that the so-called anti-railroad legislation of Congress was the cause of the panic of 1907. On the contrary, the Association's leaflet on the subject, "Legislative Bul. No. 10," says the roads have greatly profited by the Hepburn act, while the West has had no reductions in freight rates. The real trouble with the railroads is that they have been the prey of their own managers acting as jobbers of their properties' stocks; while this same stock watering has added just so much to the volume of the public debt "because shippers and the public will be forever taxed to pay the interest and dividends."

The uniform bill of lading controversy will not stay down; and on the 19th inst. the commercial law committee to the Commissioners on Uniform State Laws will again take it up. The Commissioners have had this matter under consideration for about four years, but have not been able to draft a bill for a law that has met the approval of shippers, bankers and carriers. But they are not discouraged; for a third tentative draft is now ready and will be taken up for discussion by the committee on commercial law at its coming meeting in New York. All interested are invited to be present not only at the meeting of the committee, but also at the meeting of the Commissioners for the purpose of presenting their views. Those who cannot attend in person are invited to submit written or printed briefs to Charles Thaddeus Terry, 100 Broadway, New York, secretary of the Commissioners.

That rather complacent purveyor of a superior order of wisdom, the *Commercial West*, declares that,

If the Board of Trade has carelessly let one of its members take possession of the machinery that operates the market and the grain trade of the country, why attempt to excuse its own carelessness by praising the machinery. Even if made by the angels, the quality of the machinery would not justify its illegitimate use. It is now decisively up to the Board of Trade to show, not what a splendid thing future trading is to the farmer and the country, but that the system can and will be kept commercially clean.

But is the system unclean because the prices of wheat, corn, oats and pork are higher today than they were a year ago; or because the acting editor of *The Outlook* (whom the *C. W.* criticizes as an ignoramus in such matters) and many other well-intentioned and evil-intentioned people do not understand just what they are inveigling at? By no means. It is only made to appear to the populace as unclean by those we have cited, as well as by such as the *Commercial West* which does understand the system but is willing to pass by on the other side when the Board seems to be in trouble or to deny it thrice with a straddle when the mob appears to be against it. It doesn't matter so much how the Board's machinery is viewed by

the public, which really knows nothing about it but forms its opinions on the misinformation it obtains from the newspapers which sensualize everything possible; but while Falstaff's excuse may excuse them, it does not exonerate the half-heartedness of the *Commercial West*—

Thou knowest in the state of innocence Adam fell; and what should poor Jack Falstaff do in the days of villainy.

South Africa since the close of the Boer War has become quite a corn country, producing more than is consumed at home, where as in the South it is eaten mainly by the negroes. England and Europe have taken most of the surplus; but since corn in New York passed the 70c line, buyers there have been looking to Africa where it has been found that the farmers are willing to take 20c to 25c for their grain. This would mean 58½c, New York, all expenses paid. The South African corn is said to be of fine quality—as good as any sent to New York from our West. But with a demand from this country as well as Europe for such a bargain, the profit in buying the grain here will soon shrink to normal proportions if there should remain any.

The Omaha Grain Exchange has gotten into line and abolished the 100-lb. dockage from the scale weight of a car of grain and now reports to the shipper the actual weight of the grain. If there is any subsequent shrinkage the owner of the grain will have to stand it, just as the shipper had to stand it when he owned the grain. Meantime, the Baltimore Chamber of Commerce is appealing to the Commerce Commission to revise its decision on the scalage proposition and permit it to soak shippers to that market for the shrinkage in grain after it passes out of the shipper's possession into the hand of Baltimore buyers. Baltimore has been surreptitiously taking this scalage from the shippers in the West so long it is of course taking it very hard now that it is required to do business differently, as other markets do it—every owner of the grain paying or standing his own shrinkage.

A Buenos Aires correspondent of the London Times, writing under date of January 18, 1909, gives the following statistics concerning the estimated exports of Argentine cereals and linseed in 1909:

"The quantity of wheat required for home consumption and seed purposes is officially calculated at 1,300,000 tons, and therefore the probable export during 1909 as 3,350,000 tons in the form of grain and flour. With regard to linseed, the official estimate of the surplus for export is given as 1,000,000 tons; but this is generally considered as being a very conservative computation, as from all reports received from the 'camp' so far the outturn of the crop is very heavy, and a probable export surplus of nearly 1,200,000 tons is looked for, though some estimates even put the figure as high as 1,500,000 tons. With regard to oats, it is pointed out in the report that it is very difficult to estimate the probable export surplus on account of the extent of the area given over to pastoral purposes and to the difficulty of calculating what may be required for fodder. The general opinion of the trade seems to be, however, that shipments will reach about 700,000 tons. The report further goes on to say that the maize fields are in splendid condition, and should no accidents of weather or locusts intervene, the very low estimate of yield of 2,000 kilos per hectare (17.84 bushels per acre) would give us a crop of 6,000,000 tons, which would be the largest ever gathered in the Argentine."

TRADE NOTES

The Buffalo, N. Y., office of the Prinz & Rau Manufacturing Company has been removed from 770 Ellicott Square to 757 Ellicott Square. As heretofore, the office is in charge of C. H. Near.

A. F. Shuler of Minneapolis, Northwestern agent for the Huntley Manufacturing Co., Silver Creek, N. Y., sailed from New York on April 10 for Naples, accompanied by his wife, and will be gone until about the middle of July.

Hundreds of elevator owners have found that the Hall Non-Chokable Boot does all that its makers claim. It enables the cups to be filled full and prevents chokes. The Hall Distributor Company, 506 Ramge Bldg., Omaha, Neb., send this boot on trial, under a strong guarantee.

S. F. Evans of Moulton & Evans, Minneapolis, was in Montevideo, Minn., last week adjusting the fire loss for the Montevideo Roller Mill Company whose mill and elevator burned April 24. Moulton & Evans are preparing plans for a new 1,000-barrel mill building and 100,000-bushel elevator.

The Williams Patent Crusher and Pulverizer Co., St. Louis, Mo., through their California representative Oliver J. Williams, 428 Monadnock Bldg., San Francisco, have recently sold alfalfa meal plants to the following: Somers & Co., Tehama, Cal.; Simons Brick Company, Simons, Cal.; the Dickinson Nelson Company, Stockton, Cal.

W. G. Clark, Chicago representative of the Prinz & Rau Manufacturing Company, Milwaukee, Wis., is putting in a dust collector system on glue for the Diamond Glue Company of Chicago; also a dust collector system for S. Obermayer Company of this city, on ground charcoal and carbon, also on graphite—three systems.

The American Cyclone Aspirator, made by the American Machinery and Construction Company, Milwaukee, Wis., has a large capacity and requires very little power, two features which should recommend it to the trade. It cleans thoroughly, is easily regulated and is strong and durable. It is built in two styles—all steel and combination wood and steel.

The Philip Smith Manufacturing Company, Sidney, Ohio, make a general line of elevator and power transmission machinery and have a catalogue that describes their line fully. They make a specialty of the Ohio Oscillating Corn and Grain Cleaner, which is claimed to meet every requirement of the elevator trade for cleaning corn, wheat and oats.

In the description of the Northwestern Consolidated Milling Company's new elevator at Minneapolis, which appeared in our April issue, we failed to say that the belt conveyors for this house were furnished by the Stephens-Adamson Manufacturing Co., Aurora, Ill. The conveying system in this elevator is very complete and the conveyor belts form an important part of the equipment. One of the belts is 115 feet in length.

With the time for brightening up at hand, the elevator owner naturally is considering the subject of paint. It is now generally conceded that the most satisfactory paint for exterior painting is Dixon's Silica-Graphite Paint, manufactured by the Joseph Dixon Crucible Company, Jersey City, N. J. This paint has a record of 45 years behind it and is strongly recommended for painting elevators and similar structures. Booklet 17-B, issued by the Dixon company, gives full particulars.

The city of Bellevue, Iowa, has placed an order for a Foos Three-Cylinder Vertical Engine, complete with gas producer, with the Foos Gas Engine Company, Springfield, Ohio, to replace a steam engine in the city electric light plant. This will run in parallel with a steam engine, it being anticipated that the remaining steam engine will be replaced by another like engine. The improvement will make a large saving in operating expense. The Foos Gas Engine Company are doing a large business in these producer plants, both for electric work and pumping installations, and any one considering

equipment in this line will do well to communicate with them.

The distributing spouts manufactured by J. J. Gerber, Minneapolis, Minn., are popular with the trade because they are dependable and are sold at reasonable prices. The Gerber Improved No. 2 Distributing Spout prevents the mixing of grain and can be operated from the working floor. Complete information concerning it can be had by writing the maker.

O. T. HELGERSON.

O. T. Helgerson, inventor and perfector of the New Process series of grain cleaners, is no new recruit to the ranks, but a veteran inventor and machinery builder. No longer a young man in years, though still among the "young fellows" in point of mental and physical activity, he has in his time built this class of machines for three firms, all of which proved very satisfactory; in fact, two of the machines have been leaders in the fanning mill line since they were put on the market. "His ambition," he says, "has always been to make always something better than his competitor. When I started in the business, I took one company that



O. T. HELGERSON.

was on the rocks and built them a machine; and to-day that same company is paying big dividends, all due to the machine I invented for them. But, as the company did not see it in the way that I did and as I wanted to make an improvement on my first machine, that they did not think necessary. I quit them and hired out to another and built another machine which was a little superior to the first one."

Mr. Helgerson is now associated with the Fosston Manufacturing Co. of Merriam Park, St. Paul, Minn., where he built first the Fosston Automatic Cleaner, which has been a very successful machine. But Mr. Helgerson takes a special pride in his latest invention, the New Process Cleaner, built by the same firm which he considers a marvel for doing a perfect job of close cleaning.

Will May wheat decline like Leiter year? Ohio dealer asks. It will not. Conditions are different. There is an actual scarcity. High prices are not due to manipulation. Bulls buying did help to cause them, but they are sustained by the general belief and appearances that the stocks of old wheat all over the world are the smallest in years. Chicago is not the highest market as it was in the Leiter year. Toledo May then sold as low as twenty cents under Chicago, when prices were at the top. Chicago inspection then was very rigid, but they received millions as did Toledo. Leiter marked up

prices upon himself and consigned millions to France, which was short that year. Providence smiled on the new crop and forced the old wheat forward. Now the prospects in the soft winter states is for another short crop and spring wheat is uncertain. New crop futures may fluctuate with the crop prospects, but May can hardly faint away as it did during the Leiter year. Patten bunch are the leading longs and will merchandise it at home. If the large shorts walk up and settle there would be a chance for a relapse, but hardly a panic. May will hardly decide whether Patten or Secretary Wilson is right on farm reserves, but June probably will.—King & Co.

PRIMITIVE METHODS IN BROOKLYN.

The abnormality of importing grain to this country appeared at Brooklyn, New York, during this month, when two steamers from Argentina, the *St. Jerome* and the *Pilar de Larrinaga*, laden with bulk oats, were discharged at the Atlantic Dock. The *St. Jerome* brought 4,473 tons of oats and some in bags. The *Pilar de Larrinaga* brought 2,136 tons in bulk and also some in bags. The bags were taken out in canvas slings, nine bags in each lift, just as sugar or coffee is unloaded, which was easy enough, but with the bulk grain it was different. There being no marine legs at the Dock, there was no other way of handling the grain than the antiquated method of lowering a coal tub into the hold, having it shovelled full of grain, and then hoisted up and the contents dumped into a wide-mouthed chute leading from the ship's spar deck to a canal boat alongside. Besides the men shovelling the grain into the tubs below, there were three required on deck, two to dump the tub and another to haul back the derrick boom over the hatchway so that the empty tub could be lowered to be filled again. It was a costly and antiquated procedure, but the only one available in the absence of a stationary marine leg or floating elevator to do the work. The former facilities of this kind having been abandoned and removed because for many years there was no call for them.

Much the same anachronism was seen earlier in the month at Pierrepont's Stores when the steamship *Verdi* unloaded 90,000 bushels of oats also from the Argentine. Fifteen years ago there were a dozen elevators on the Brooklyn waterfront, with a storage capacity of about 21,000,000 bushels and their loading capacity was immense. For various reasons the grain trade was diverted to other ports, and one after another the elevators were razed, their costly machinery going for junk, until but one remains—Dow's, at the foot of Pacific street. Two of those that were razed had "ship legs," that is, equipped to discharge a grain cargo from a large vessel. There is a fleet of nearly a score of floating elevators in existence in the port and doing a fairly good business in part cargoes, but not one of them can take a grain cargo out of a vessel like either of the three named. Dow's elevator is used only for a local milling trade. A steamship cannot be discharged there, although it contains something like 16 miles of conveyors and belting, a storage capacity of more than 3,000,000 bushels. "The palmiest days that the Brooklyn waterfront ever had was during the period of its grain trade," says the Eagle newspaper. "Most of this was done with tramp steamships, and it is conservatively estimated by a member of the Produce Exchange that each of these left in the port \$5,000, divided between the warehouse man, ship repair people, butchers, bakers, and so on. In view of the expected imports of grain, it looks as though some one interested would provide better facilities for handling these cargoes than a coal bucket. Only one step lower can be reached than this—to discard the steam engine and use a skeleton hoisting horse and a small boy to do the work. It may be added that all other shipments of grain inward have been discharged just as the *Verdi*'s is being unloaded."

Grain dealers (called brokers) in Nebraska, will be assessed for taxation of 1909 by the former methods, the new law (H. R. 215) not applying to grain in hand on April 1, 1909.

IMPROVING WESTERN WHEATS.

The plans of the United States Department of Agriculture for the improvement of wheat growing in the West are outlined by C. B. Wood of the Department in *Orange Judd Farmer*.

During the past year the Department has been engaged in the introduction of Kharkof wheat, which is a hardier variety of Turkey than that now grown in Kansas and Nebraska. It is intended to have this wheat take the place of the Kansas and Nebraska Turkey wheat, because of the limited area on which the latter can be profitably grown.

The Kharkof grows successfully in the southern portion of South Dakota and west to the 100th meridian, producing a very fine quality of grain. It is a little earlier than the ordinary Turkey wheat, and for that reason escapes the rust better. Since the introduction of this variety the Kansas growers have introduced, at several times, large quantities of this hardier Kharkof wheat, as it is more satisfactory than other varieties. Its area, though, is east of the 100th meridian. It is now being grown to some extent west of the 100th meridian on account of the rather wet years which they have been having in the West for the past four or five years.

But all investigations have shown that these wet periods are followed by drouth, and in a few years more, western Kansas, western Nebraska, and the western Dakotas will have another drouth, and the Kharkof wheat and all other eastern wheats and grains, including corn, will die. They will not grow with a less amount of water than 12 to 14 inches. So that west of the 100th meridian the Department has been trying to interest the farmers in the growing of the durum wheat, which is a hard, spring wheat introduced from Russia, yielding from 35 to 40 bushels per acre on a very small rainfall and producing a successful crop with 8 inches of water. That is about the lowest that the region west of the 100th meridian ever reaches, so that it is believed that in the durum a spring wheat which will stand the drouth has been found.

Then, in addition to that, the Department is trying to convert the ordinary durum wheat, which is now a spring wheat, into a winter wheat, so that in Kansas, Oklahoma, and in western Texas it can be planted in the winter, and, of course, get the advantage of a little larger rainfall during the winter and pro-resistant wheat, standing up perfectly where the other wheats succumb to the rust. It is being used to breed rust resistance into the spring wheats of the north, especially those of Minnesota, Wisconsin and Michigan. Those spring wheats, the Bluestem, especially, are very susceptible to rust. The Department has crossed the Bluestem with the durum, and has now a hybrid, which is equal to the durum in rust resistance and has the berry of the Bluestem. So it is hoped it has something there for the spring wheat districts.

RECEIPTS OF WHEAT AT PRIMARY MARKETS.

Receipts of wheat at winter and spring grain markets for 44 weeks, since June, with comparisons, in bushels, compiled by the Cincinnati Price Current:

	1908-9.	1907-8.
St. Louis	16,919,000	17,161,000
Toledo	3,761,000	4,414,000
Detroit	2,051,000	1,236,000
Kansas City	37,217,000	29,902,000

	Winter wheat	Spring wheat
Chicago	59,948,000	52,713,000
Milwaukee	29,068,000	22,065,000
Minneapolis	8,669,000	8,140,000
Duluth	78,166,000	64,283,000
	51,170,000	42,643,000

	Spring wheat	Aggregate 44 weeks
	156,073,000	137,131,000

Total receipts of winter and spring wheat at primary markets 44 weeks since June, 1908, with comparisons:

	Winter.	Spring.	Total.
1908-09.....	59,948,000	156,073,000	216,021,000
1907-08.....	52,713,000	137,131,000	189,844,000
1906-07.....	60,197,000	158,084,000	218,281,000
1905-06.....	63,384,000	155,491,000	218,875,000
1904-05.....	57,704,000	136,520,000	194,224,000

Robbers broke into the establishment of E. S. Dixon & Co., grain dealers at Houston Heights, Texas, last month, and after an unsuccessful attempt to rob the safe, fired the building. Before the firemen could reach it the plant was doomed. Two box cars, loaded with hay, were also burned. The total loss on the building and cars is placed at \$16,000, with only a small amount of insurance.

RECEIPTS AND SHIPMENTS.

Following are the receipts and shipments of grain, etc., at leading receiving and shipping points in the United States for the month of April, 1909:

BOSTON—Reported by Daniel D. Morss, secretary of the Chamber of Commerce.

Articles	Receipts		Shipments	
	1909	1908	1909	1908
Flour, barrels.....	129,954	118,898	35,103	52,867
Wheat, bushels.....	414,480	15,337	470,539	461,903
Corn, bushels.....	300,723	34,068	431,367	123,791
Oats, bushels.....	273,880	274,535	2,944	1,164
Rye, bushels.....	11,441	5,827	.....	18,080
Barley, bushels.....	16,570	8,003	18,693	16,667
Flaxseed, bushels.....	.....	5,338	.....	4,080
Peas, bushels.....	2,309	1,027	78	115
Millfeed, tons.....	3,075	3,406	1,846	2,495
Corn Meal, barrels.....	7,066	12,907	9,050	12,548
Oat Meal, barrels.....	13,974	15,985	12,705	4,400
Hay, tons.....	7,940	10,030	520	14

CHICAGO—Reported by George F. Stone, secretary of the Board of Trade.

Articles	Receipts		Shipments	
	1909	1908	1909	1908
Wheat, bushels.....	757,500	526,830	1,513,992	1,914,112
Corn, bushels.....	29,683,350	6,460,308	5,156,734	4,525,836
Oats, bushels.....	5,427,550	7,732,941	5,147,949	5,722,365
Barley, bushels.....	1,485,500	1,326,058	741,274	670,442
Rye, bushels.....	97,000	43,000	75,499	78,533
Timothy Seed, lbs.....	4,163,274	1,560,130	1,430,741	1,085,343
Clover Seed, lbs.....	532,308	234,060	417,987	116,390
Other Grass Seeds, lbs.....	2,597,619	274,393	5,269,464	4,202,487
Flax Seed, bushels.....	45,000	163,175	3,306	39,968
Broom Corn, lbs.....	267,812	1,154,269	329,275	689,540
Hay, tons.....	16,340	20,072	1,359	2,007
Flour, barrels.....	673,249	763,870	598,390	609,011

CINCINNATI—Reported by C. B. Murray, Supt. of the Chamber of Commerce.

Articles	Receipts		Shipments	
	1909	1908	1909	1908
Wheat, bushels.....	255,326	297,716	226,658	328,808
Corn, bushels.....	538,926	661,112	313,570	412,390
Oats, bushels.....	382,680	506,864	200,850	234,677
Barley, bushels.....	14,120	19,012	28	124
Rye, bushels.....	26,140	70,322	16,040	59,050
Malt, bushels.....	146,066	145,114	31,646	59,914
Timothy Seed, bags.....	129	1,116	5,587	2,687
Clover Seed, bags.....	1,432	999	6,781	3,444
Other Grass Seed, bags.....	8,922	7,642	11,115	8,690
Hay, tons.....	12,645	14,470	9,097	11,693
Flour, barrels.....	122,739	119,558	69,800	76,872

CLEVELAND—Reported by M. A. Havens, secretary of the Chamber of Commerce.

Articles	Receipts		Shipments	
	1909	1908	1909	1908
Wheat, bushels.....	17,713	33,976	71,204	43,786
Corn, bushels.....	421,544	218,577	175,976	170,654
Oats, bushels.....	350,384	502,564	208,402	87,254
Barley, bushels.....	53,445	36,595	800	.....
Flax Seed, bushels.....	.....	.....	.....	.....
Hay, tons.....	3,923	4,310	182	518
Flour, barrels.....	58,870	48,540	11,990	16,740

DETROIT—Reported by F. W. Waring, Secretary of the Board of Trade.

Articles	Receipts		Shipments	
1909	1908	1909	1908	

<tbl_r cells="5" ix="5"

ELEVATOR AND GRAIN NEWS

ILLINOIS.

The new Farmers' Elevator at Kempton, Ill., is nearly finished.

Root & Westervelt are enlarging their elevator at Shelbyville, Ill.

Wm. & W. W. Schumacher will erect a 10,000-bushel elevator at Romeo, Ill.

K. A. Harper has let the contract for his new 20,000-bushel elevator at Potomac, Ill.

A. H. Edwards has let the contract for a 20,000-bushel addition to his elevator at Tolono, Ill.

The Burrell Engineering and Construction Co. is repairing Graham Bros.' Elevator at Durand, Ill.

Henry Noble of Litchfield, Ill., has purchased the elevator of John Pier at Nokomis, Ill., and will operate it.

A. M. Taggart and H. A. Stotler have formed a partnership to engage in the grain business at Wewona, Ill.

New scales are being installed in the Turner-Hudnut Elevator at Chandlerville, Ill., by Manager J. W. Abbott.

Wing & Clevidence have purchased the Neola Elevator at Mt. Morris, Ill., and now own both elevators at that point.

J. H. Rosenstiel of Freeport, Ill., has purchased the Hammond Elevator at Stockton, Ill., and will conduct it personally.

The elevator of George B. Griffin at Charleston, Ill., has been completely overhauled and equipped with the latest machinery.

The recently incorporated Arlington Grain Co. has purchased the Neola Elevator at Arlington, Ill., paying \$3,850 for the house.

Charles A. Miller has purchased a half interest in the Heiko Van Beuning Elevator at Emden, Ill., paying \$3,500 for the half share.

The Galva Grain Co. of Galva, Ill., has filed notice of change of object of organization with the Secretary of State at Springfield.

P. B. & C. C. Miles of Peoria, Ill., have purchased the Rapp Elevator at Natrona, Ill. Claude Barlow will be local manager of the house.

The Smith-Hippen Grain Co. is planning to erect an elevator at Tampico, Ill. The house will be located on the canal feeder at that point.

S. M. Rose and John Jakle of Cissna, Ill., have purchased the elevator of John L. Smiley at Watseka, Ill. The consideration was \$8,500.

A new Fairbanks Scale has been installed in the Farmers' Elevator at Utica, Ill. A 20-horsepower engine has also been added to the equipment.

H. C. Clark, H. J. Casley and Henry H. Morey have incorporated the Clark Grain & Elevator Co. of Argenta, Ill., with a capital stock of \$18,000.

The Farmers' Elevator of Literberry, Ill., has been incorporated with a capital stock of \$6,000 by G. O. Dunlap, John W. Martin and D. E. Kennedy.

The Barnard & Leas Manufacturing Co. of Moline, Ill., has purchased two Hall Signaling Grain Distributors of the Hall Distributor Co., Omaha, Neb.

John Gaddis & Son, proprietors of the Model Mills at Mt. Sterling, Ill., have commenced the construction of a 15,000-bushel elevator adjoining their property.

The Millington Grain Supply Co., of Millington, Ill., are making repairs on their elevator. The Burrell Engineering & Construction Co. has the contract.

The Sicily Farmers' Grain Co. has purchased the Brainerd Elevator at Sicily, Ill., for a consideration of \$8,000, and will abandon plans for erecting a new house.

T. W. Keelin & Son have placed the contract with the Burrell Engineering & Construction Co. for a 26,000-bushel elevator, to be built on the Belt Line, Chicago.

Fred Friedline & Co. are building a 30,000-bushel transfer and receiving elevator at Litchfield, Ill., for C. B. Munday & Co. It will be finished by June 15.

The J. A. Forrest Co. of Dixon, Ill., has been incorporated with \$15,000 capital stock to carry on a general grain business. The incorporators are J. A. Forrest, John Forrest and Josephine A. Forrest.

The building of the Chicago & Alton's double track south of Springfield, Ill., will necessitate the removal of several large buildings along its line. Notable among these are the two elevators at Virden, Ill. The Farmers' Elevator at that place will have to be moved some twenty-one feet to the east

of its present location, and the elevator of J. N. Hairgrove will be shifted fifteen feet.

E. M. Merritt, Jacob Froelich, Davidson Gilmore and Wm. Hunter have incorporated the Farmers' Grain and Coal Co. of Saybrook, Ill., with \$10,000 capital stock.

B. P. Hill & Co. of Freeport, Ill., have purchased two elevators of Bartlett, Patten & Co. of Chicago, one a 12,000-bushel house at Haldane, Ill., and the other a 25,000-bushel house at Woosung, Ill.

The Schultz & Niemeier Commission Co., of St. Louis, Mo., has awarded the contract to the Burrell Engineering & Construction Co., for a 30,000-bushel addition to their elevator at Granite City, Ill.

Housh & Thompson are planning to tear down their old elevator at Moweaqua, Ill., to make way for a new 25,000-bushel house. The old elevator was first erected in 1867, and has done duty as a grain elevator since 1875, having passed through many hands.

The Farmers' Grain Co. of Palmer, Ill., has let the contract for its new 40,000-bushel elevator at that point. Work will commence at once on the structure, which will cost about \$8,000 completed. The plant will be operated by a 60-horsepower engine, and will contain a large drier.

S. W. Strong, secretary of the Illinois Grain Dealers' Association, reports the following recent changes among the grain dealers of Illinois: J. J. Kemp succeeds Farmers' Co. at Lexington; Stotler Bros. succeed Abel Brooks & Co. at Yoemans; Love & Lummis succeed Catlin Bros. at Augusta; Edward McKee succeeds James F. Umpleby at Denville (Henton P. O.); J. H. Rosenthal succeeds the Hammond Grain Co. at Stockton; Luther E. Sisly succeeds Fred Colehour at Mt. Carroll; W. D. Blair succeeds Marshall Bros. at Malta; Wm. Zierfuss succeeds the Rogers Grain Co. at Randolph; Oscar Stotler succeeds the Rogers Grain Co. at Risk; E. M. Grunsted & Co. succeeds Coon Bros. at Cheneyville; D. Kelly succeeds E. M. Grunsted & Co. at Rankin; M. J. Stotler succeeds the Rogers Grain Co. at Strawn. New members are reported as follows: J. P. Sledge, Champaign; A. H. Edwards and J. A. Creamer at Tolono; E. M. Grunsted & Co., Cheneyville; Catlett & White, Fairmount.

MINNESOTA AND WISCONSIN.

C. Steinkopf has disposed of his elevator at Drake, Minn.

J. P. Larson has purchased an elevator at Baldwin, Wis.

A farmers' elevator company is contemplated at Wirock, Minn.

A farmers' elevator company is being organized at Murdock, Minn.

It is reported that a farmers' elevator will be built at Gaylord, Minn.

The Parker Elevator at Grogan, Minn., has been closed for a few months.

L. W. Lindstrom is erecting a small elevator at Prior, near Clinton, Minn.

R. L. Porter has sold his grain business at Mukwonago, Wis., to Bimmer & Durant.

An agitation has been started at Keister, Minn., for a farmers' elevator at that point.

J. E. Carlson has purchased an interest in the Erickson Elevator at Lafayette, Minn.

John Frank of Cass Lake, Minn., is planning to erect an elevator at New Duluth, Minn.

Lindquist Bros. are planning to erect an elevator at White Rock, near Cannon Falls, Minn.

The Imperial Elevator at Kragnes, Minn., has been closed, leaving but one house open at that point.

The Jargo Elevator at Luverne, Minn., has been sold to Emmett Maloney, who will open it for business.

The Monarch Elevator Co. is contemplating the addition of a feed mill to its elevator at Luce, Minn.

The farmers in the vicinity of Dallas, Wis., are planning to build an elevator and warehouse at that place.

The Commander Mill Co. is planning to build a new elevator adjacent to its present mill at Mapleton, Minn.

Wrabek & Co. have leased the Powers Elevator at New Prague, Minn. Joseph Wrabek will have charge of the house.

Farmers about Alberta, Minn., are forming a company for the purpose of buying and operating the Hennepin Elevator at that place.

A number of improvements will shortly be made at the Farmers' Elevator at Mazeppa, Minn., including new belts, a fanning mill, etc.

The Farmers' Co-operative Elevator Co., recently organized at Fergus Falls, Minn., will probably build a new elevator at that point.

Work has begun at Duluth, Minn., on the new plant to replace Elevator "D," which burned last year. The foundations of the tanks, which will

have a total capacity of 600,000 bushels, have been laid and the main house is nearly completed.

The contract for the new A. S. of E. Elevator at Diamond Bluff, Wis., has been placed, and construction work will be commenced within a short time.

The Eagle Roller Mill Co. of New Ulm, Minn., has decided to remove its elevators at Echols and St. James, Minn., to Crandall and Leola, both in South Dakota.

The C. H. Shaver Grain and Lumber Co. has been incorporated at Carlton, Minn., with a capital stock of \$50,000 by C. H. and J. B. Shaver and H. J. Newell.

O. E. Anderson, for several years past buyer at the Minnesota & Western Elevator at Cottonwood, Minn., has purchased the Northwestern Elevator at that place, which he will conduct himself.

The laying of concrete on the new Great Northern storage elevator at Superior, Wis., has been started and it is expected that the house will be ready for grain by next August. The foundations are about completed, and work has commenced on the tank bins. These bins will be about 20 feet in diameter. There will be seventy-two of them in all, each with a capacity of 20,000 bushels. In addition there will be fifty-four intermediate tanks, each holding 9,000 bushels.

EASTERN.

Isaac O. Enders has erected a grain warehouse at Enders, near Lykens, Pa.

The Taunton Grain Co. is now occupying its new plant at Weir Village, Mass.

S. F. Healey has purchased the grain business of M. F. Nilan at Morningside, Mass.

W. E. Cram & Co. are building a new grain house at Antrim, N. H. Frank Downes is in charge.

The Hoosac Tunnel Elevator at Charlestown, Mass., owned by the Boston & Maine Railroad, is to be changed from steam to electric power.

Charles E. Thompson, William J. Ashton and Charles Short have incorporated the Onondaga Grain Co. of Syracuse, N. Y., with \$10,000 capital stock.

The Scott Grain Co. of Buffalo, N. Y., has filed incorporation papers. The capital stock is \$5,000 and the directors are Ernest L. Scott, John S. Embleton and Harry F. De Ceu.

The Atlantic Grain & Feed Co. of Kittery, Me., has filed a certificate of organization placing its capital stock at \$150,000. The officers are Horace Mitchell, president and S. J. Morrison, treasurer.

The partnership of William A. White and Henry J. Naughton, carrying on a general grain business at Boston, Mass., under the firm name of White, Naughton & Co., has been dissolved by mutual consent.

Andrew R. Watson of the grain firm of Hill & Watson of Amsterdam, N. Y., has acquired a one-third interest in the Syracuse Milling Co., of Syracuse, N. Y. Arthur Hill will succeed to Mr. Watson's interest in the firm of Hill & Watson. Mr. Watson will remove to Syracuse about June 1.

The Mauser Milling Co., operating mills at Treichler's, Laury's and Northampton, Pa., will build a 22,000-bushel steel elevator adjacent to its mill at Northampton and a similar 40,000-bushel house at Laury's. A new office building will also be erected at Northampton.

The National Elevator Co. recently organized at Buffalo, N. Y., for the purpose of constructing a chain of elevators in the Northwest, has chosen William A. Heacock as president. Other officials elected are: Dr. John G. M. Noble, vice-president; John Peterson, treasurer; Dr. A. J. Martin, secretary, and John R. Brodie, general manager.

IOWA.

A farmers' elevator company is being organized at Bigelow, Iowa.

A. V. Briggs will build an addition to his elevator at Owasa, Iowa.

Bryant & Son have closed down their elevator at Thor, Iowa, for the season.

Inglis Bros. have disposed of their grain business at North English, Iowa, to L. W. Butler.

The Agnew Grain Co. is planning to erect an elevator at the new townsite near Winkler, Iowa.

Joseph Olson has acquired and will take possession of the Western Elevator at Ellsworth, Iowa.

The Farmers' Co-operative Grain Co. has commenced the erection of an elevator at Waukeee, Iowa.

A farmers' elevator company has been organized at Belmond, Iowa. An elevator will probably be erected.

Farmers in the vicinity of Hurley, Iowa, are organizing for the purpose of building an elevator at that point.

Kunz Bros., of Wesley, Iowa, have purchased the grain, coal and feed business of the Pfund Lumber Co. at Luverne, Iowa, and will conduct it. Earl

Lovell will remain with the new owners as local manager.

A farmers' elevator company has been organized at Storm Lake, Iowa, and an elevator will probably be erected.

E. G. Dennis has purchased the elevator at Glenwood, Iowa, of Walter Shade, and will enlarge and improve it.

The Farmers' Co-operative Elevator Co. has purchased the elevator of the Western Elevator Co. at Woolstock, Iowa.

The De Wolf & Wells Grain Co. of Spencer, Iowa, has closed its elevator at Terril, Iowa. The house will be reopened in the fall.

Morris Gladstone has leased the Farmers' Elevator at Burdette, Iowa, for a period of five years, and will take possession on July 15.

The Farmers' Elevator Co. of Kellogg, Iowa, has been incorporated with \$25,000 capital stock by C. T. Shell, Carl Luez and others.

The Farmers' Elevator Co. of Luther, Iowa, has been incorporated with a capital stock of \$4,000 by E. J. Cartwright, T. H. Keighley and others.

The Farmers' Elevator Co. of Hampton, Iowa, has selected a site on the line of the St. Paul & Des Moines Railroad at that place for its new elevator.

Work is progressing rapidly on the new elevator at Boone, Iowa, which is being erected for the recently incorporated B. M. Huntley Grain Co., of that place.

The Garwin Elevator Co. of Garwin, Iowa, has been incorporated with \$20,000 capital stock. Fetter Hall is president of the company and Charles Ambler secretary.

An attempt is being made to organize a farmers' company in the vicinity of Colo and Maxwell, Iowa, for the purpose of buying the Western Elevator Co.'s house at Colo.

George Messelheiser has traded his grain elevator at Alexander, Iowa, to J. W. Hazeltine for a 160-acre farm. Mr. Messelheiser will take a vacation in California with a view to bettering his health.

The Younglove Construction Co. of Sioux City, Iowa, has been awarded the contract for the building of the new 20,000-bushel elevator for the Farmers' Mutual Co-operative Co. at Hospers, Iowa.

The Farmers' Elevator Co. of Eldridge, Iowa, recently organized with \$25,000 capital stock, has purchased the elevator of the Jackson Grain Co. at Eldridge and will take possession on May 1. Julius J. Weise is secretary of the new company.

SOUTHERN AND SOUTHWESTERN.

The Westbrook Elevator Co. of Danville, Va., has increased its capital stock from \$10,000 to \$150,000.

The Knox County Elevator Co. has succeeded the S. P. Davidson Grain & Coal Co. at Munday, Texas.

The Hartley (Texas) Mill & Elevator Co. is planning to add new mill and elevator machinery to its plant.

The capital stock of the grain firm of J. H. Wilkes & Co. of Nashville, Tenn., has been increased from \$30,000 to \$50,000.

It is reported that the H. H. Crouch Grain Co. will rebuild the elevator and warehouse recently damaged by fire at Waco, Texas.

S. D. Scott & Co. have been incorporated with \$50,000 capital stock at Norfolk, Va., to carry on a general grain and hay business.

The Boonsboro (Md.) Coal & Grain Co. has been incorporated with \$5,000 capital stock by B. Clifton Warrenfeltz and Herbert A. Kline.

Work is now progressing well on the new 20,000-bushel elevator of Smith, Wiley & Co., at Sanger, Texas. The engine house has been entirely completed.

J. J. Lyne and John W. Irvin have formed a partnership under the style of Lyne & Irvin, to conduct the grain business of Mr. Lyne at Shenandoah Junction, W. Va.

The Virginia Feed and Grain Co., of Petersburg, Va., has been incorporated with \$25,000 capital stock. L. V. Parham is president of the company and J. P. Jackson secretary.

The Washington, Frederick & Gettysburg Railroad, H. T. Carmichael, chief engineer. Frederick, Md., is promoting the organization of an elevator company at Thurmont, Md.

J. M. Trenholm & Co. are building a 25,000-bushel frame iron-clad elevator and 20,000-bushel warehouse at Memphis, Tenn. It will be completed by June 1. Fred Friedline & Co. have the contract.

J. F. Mulhern of Memphis, Tenn., has placed the contract with Fred Friedline & Co. for a two-story warehouse 70 x 170 feet, with capacity of 150 cars of grain and hay. It will be completed by June 15.

The Texas City Co., which has acquired control of large properties at Texas City, Texas, proposes to build a fire-proof grain elevator at that point, with a total capacity of about 500,000 bushels. Other warehouses and storehouses will also be constructed.

The company has already expended over \$1,300,000 on its properties at Texas City.

P. J. Beutter, J. L. Crum and James Storm have incorporated the Cashion-Lockridge Elevator Co., of Cashion, Okla., with a capital stock of \$10,000.

Work has commenced on the new 65,000-bushel elevator for the Early Grain Co. at Amarillo, Texas. The elevator will be ready within three months.

The Rex-Perkins Grain Co. has let the contract for the erection of a new 50,000-bushel elevator, to cost \$15,000, at Amarillo, Texas. The company has recently increased its capital stock from \$5,000 to \$25,000.

Fred Friedline & Co. have just completed a brick and concrete warehouse for hay and grain for the Riverside Elevator & Warehouse Co. at Memphis, Tenn. Its dimensions are 94 x 120 and capacity is 100 cars.

E. P. Wilkins has purchased an interest in the Monarch Grain Co. of Hopkinsville, Ky., and on May 1 succeeded Charles S. Jackson as secretary and treasurer of the company. Mr. Jackson has retired from the business.

J. W. Quinn, formerly manager of the Farmers' Grain Co. of Sturgis, Ky., has formed a local partnership with A. Waller & Co., of Henderson, Ky., to conduct a grain business at Sturgis under the style of J. W. Quinn & Co.

The Knox Grain Co. has been incorporated at Nashville, Tenn., with \$15,000 capital stock. The incorporators are: W. E. Knox, Paul W. Pritchard, T. G. Hall, L. O. C. Knox and Maney C. Watson. The company will take over the plant of the Samuels Elevator Co. in July.

WESTERN.

The Hawkeye Elevator Co. has secured an elevator site at Meyersburg, Mont.

It is reported that another Minneapolis elevator company will erect a grain elevator at Philbrook, Mont.

J. E. Helms, formerly of Marshall, Minn., is planning to build an elevator at Conrad, Mont., this summer.

The Missoula Mercantile Co. of Missoula, Mont., is making plans for the erection of a 72,000-bushel elevator at Victor, Mont.

The Spokane Grain Co. has commenced the erection of a grain elevator, hay warehouse, and barn at Argo, south of Seattle, Wash.

The McCaul-Webster Elevator Co. has filed articles at Lewiston, Mont. The company will operate a chain of elevators throughout Fergus county.

The Farmers' Union Warehouse Co. of Shaniko, Ore., has been incorporated with \$5,000 capital stock by C. F. Bleakney, A. B. Larsen and H. E. Harvey.

The Billings Milling Co. of Billings, Mont., is contemplating the erection of 75,000-bushel elevator in that city, and a chain of smaller elevators at advantageous points in the state.

The Interior Warehouse Co., the Kerr-Gifford Co., and the Vollmer-Clearwater Co. are all reported to be considering the advisability of erecting grain warehouses at Arrow Junction, Idaho.

The Dry Coulee Union Grain Co. of Adrian, Wash., has been incorporated with \$2,000 capital stock by Claude Forrey, J. W. Ward, I. M. Slaten, A. D. Pugh and Thomas C. Simmons.

D. L. Lytle, of Dickinson, N. D., will shortly commence the erection of elevators at Miles City, Columbus and Huntley, all in Montana. Mr. Lytle retains his interests in North Dakota.

The Portland Flouring Mill Co. has drawn plans for a 125,000-bushel steel and concrete elevator to be erected adjacent to the company's present plant at Portland, Ore. The estimated cost of the new elevator is about \$30,000.

The W. O. Kay Co. of Ogden, Utah, has made all arrangements for the erection of a 100,000-bushel steel and concrete elevator at Cache Junction, fifty miles west of Ogden. The building will have cost about \$50,000 when completed.

It is reported that the farmers will, during the coming season, erect a grain warehouse at Nez Perce, Idaho, and one midway between Nez Perce and Vollmer on the Nez Perce & Idaho Electric Railway. A third house may also be built at Vollmer, Idaho.

The Colorado Milling & Elevator Co. of Denver, Colo., will erect a large grain elevator in connection with the milling plant now under construction at Caldwell, Idaho. It is planned to erect smaller elevators at other points in the State and in eastern Oregon.

The Inter-Mountain Milling Co. of Salt Lake City, Utah, has awarded to G. H. Birchard of Lincoln, Neb., the contract for the erection of a 30,000-bushel elevator at Salt Lake City. The elevator will measure 30x32 feet and be iron-clad throughout, resting on a heavy concrete foundation. It will be equipped with electric motors, one stand of elevators, passenger elevator, power shovel and a No. 34 Bar-

nard & Leas separator, with rope transmission throughout.

The Ritzville Warehouse Co., operating at Ritzville, Wash., will erect a 50,000-bushel elevator there to handle grain in bulk and sack. A dump scale and cleaner will be part of the new apparatus. It will be put in this season. The plant involves an expenditure of \$10,000.

The Graingrowers' Warehouse Co., an organization composed of farmers around Wilbur, Wash., has been incorporated with the following directors: William Lauritzen, president; H. Haden, vice-president; R. P. Short, secretary and treasurer. It is understood that an effort will be made to secure one or more grain warehouses at Wilbur, that the company may handle the grain of the members.

Eastern capitalists are completing arrangements for the building of a large elevator and dock at Portland, Ore., to be ready for operation by August 15. Fred Mueller, secretary of the Portland Board of Trade, has been representing the backers of the proposition in Portland. A site has already been chosen. The house will be a twelve-story structure, 400 x 50 feet and will represent an outlay of about \$100,000.

Thirty thousand dollars is the estimated cost of a three-story warehouse to be erected by the Washington Grain & Mill Co. in Spokane. The site cost \$10,000. This ground is to be improved instead of that on North Monroe and Boone avenue, which the company bought a few months ago. The Monroe street property will be put back on the market. The new site is a triangle having a frontage of 184 feet on Elm street and 134 feet on Fifth avenue. The entire site will be covered by the new warehouse, which is to be built in the near future. The company owns a warehouse on the west side of Washington street and the south side of the Northern Pacific tracks and a mill at Reardan, Wash.

The Northern Grain and Warehouse Co., recently incorporated in Oregon, has obtained control of all the warehouses between Tekoa, Wash., and the Snake River owned by the Pacific Grain company and the Campbell-Sanford-Henley company. The houses operated by O. P. Johnson and by Duling & Bishop of Garfield, Wash., have also been acquired. The deal includes the transfer of a warehouse at Latah and one at Waverly, belonging to the latter company, and two on the Coeur d'Alene reservation at Tilma and Lovell, stations on the Tekoa-Burke branch of the O. R. & N. The firm will also have about twenty houses in the interior. A. Cohn of Portland, who has been connected with both companies, will be manager. Offices will be established in Spokane, Tekoa, Colfax, Portland and Tacoma. I. S. Woods, who has been the Tekoa agent for several years of the C.-S.-H. company, will continue under the new firm, and Lake Francis, an experienced grain dealer, will handle the business at Spokane and the adjacent territory. The Portland and Puget Sound offices will be under the management of A. E. Sutton.

OHIO, INDIANA AND MICHIGAN.

Edward Heinlen is preparing to erect a grain elevator at New Winchester, Ohio.

A new grain elevator is being erected on the line of the C. B. & C. at Uniondale, Ind.

The Quincy Grain Co. at Quincy, Ohio, has been incorporated with a capital stock of \$15,000.

The Saginaw Milling Co. has sold its grain elevator at Unionville, Mich., to J. H. Kemp & Co.

It is reported that sites have been purchased at Dewitt, Mich., for the erection of two new elevators.

The Mac Donald Grain & Bean Co. has been incorporated with \$10,000 capital stock at Bay City, Mich.

Work is being pushed rapidly on the new elevator at Kimmel, Ind. At present the village has no grain handling facilities whatever.

Henry Lung of Portland, Mich., is building a new grain elevator at Eagle, Mich., on the site of the house which was burned several years ago.

Caldwell & Barr of Earl Park, Ind., are remodeling their transfer elevator to increase the handling capacity. Fred Friedline & Co. has the contract.

The newly organized Farmers' Elevator Co. of Rockfield, Ind., has started the construction of an elevator on the line of the Wabash at that place.

Charles S. Mason has purchased the business of his father, W. H. Mason, conducted under the name of W. H. Mason & Co. at Hancock, Mich. He took possession on May 1.

Valentine Bros., of Franklin, Ind., are building a new elevator inside of their old mill. It will have capacity of 25,000 bushels and the work is being done by the Burrell Engineering & Construction Co.

The Havens Elevator & Supply Co., of Havens, Ohio, has awarded the contract to the Burrell Engineering & Construction Co., for a 20,000-bushel combination elevator for small grain, ear corn and feed. It will be equipped with a 32-horse-power Fairbanks gasoline engine, a Sprout, Waldron & Co.'s

Monarch attrition mill, a B. S. Constant Co.'s U. S. sheller and a Huntley Mfg. Co.'s Monitor cleaner.

Weber & Purviance, the elevator owners and grain dealers of Huntington, Ind., are building a new brick office building in that city. The building will have a 22-foot frontage and be 120 feet long, one story in height.

A. Waller & Co. of Henderson, Ky., are making extensive preparations to handle grain on a large scale at McGary station, four miles east of Owensville, Ind. A continuous corn crib, 500 feet in length, has been built alongside the tracks of the E. & T. H. Railroad, and an elevator is now in the course of construction. Power for the new elevator will be furnished by the E. & P. Electric Railway. Robert Boyle is at present representing A. Waller & Co. at McGary.

MISSOURI, KANSAS AND NEBRASKA.

The Wolf Milling Co. is enlarging its elevator at Dartmouth, Kan.

William Boyd has commenced building an elevator at West Garfield, Kan.

The Lyons Milling Co. is erecting a 50,000-bushel steel storage tank at Lyons, Kan.

Charles Gunn has purchased the elevator of the Rock Grain Co. at West Side, Kan.

Nash & Kaull are erecting a grain elevator adjacent to their mill at Glen Elder, Kan.

M. W. Burger has started a movement for farmers' elevator company at Crab Orchard, Neb.

The Shellabarger Co. of Salina, Kan., will shortly erect a 35,000-bushel elevator at Smolan, Kan.

The Chris. Hilke Hay & Grain Co. of St. Louis, Mo., has incorporated with \$20,000 capital stock.

The Farmers' Co-Operative Union is considering a proposition to erect an elevator at Osborne, Kan.

B. C. Ragan & Sons are tearing down their old house at Nortonville, Kan., and will erect a new elevator on the site.

Sturgeon & Co., of Belpre, Kan., have purchased a Hall Signaling Grain Distributor, of the Hall Distributor Co., Omaha, Neb.

B. H. Conlee and R. S. Arthur have purchased the elevator of W. N. Spellman at Beatrice, Neb., and assumed charge of it.

Merriam & Holmquist have purchased the property adjoining their elevator at Omaha, Neb., and will enlarge their facilities.

Jones & Borah have let the contract for their new 25,000-bushel elevator at Collyer, Kan. The house will cost about \$9,000.

The Ruddick Co. of Gregory, Mo., has purchased a Hall Signaling Grain Distributor of the Hall Distribution Co. of Omaha, Neb.

An attempt is being made to organize a farmers' elevator company at Ruskin, Neb. The capitalization of the company will be \$10,000.

The Hall Distribution Co. of Omaha has sold a Hall Signaling Grain Distributor to the Jones Grain Co., to be installed at Niobrara, Neb.

The company recently organized at Grenola, Kan., of which J. R. Demmitt is the head, is preparing to erect a grain elevator at that point.

The Kaufman-Boyle Grain Co. has been obliged to abandon for the present on account of the contested railroad track conditions in Wichita.

The Goehner Elevator Co. has installed a Hall Signaling Grain Distributor, manufactured by the Hall Distributor Co., in its elevator at Goehner, Neb.

The Clafin Grain, Fuel and Stock Co. has decided to tear down its old elevator at Clafin, Kan., and replace it with a new house of 20,000 bushels capacity.

The Ellsworth Grain & Elevator Co. has let the contract for the erection of a 75,000-bushel elevator at Oakley, Kan. The house will cost, completed, about \$35,000.

Work started recently on the new elevator which Eugene and Edward M. Kelly of Wichita are erecting at Waldron, Kan. The house will have a capacity of 10,000 bushels.

W. S. Culver, John A. Taylor, H. C. Helm and others have incorporated the Bosworth Grain, Elevator and Live Stock Association of Carrollton, Mo., with \$3,850 capital stock.

J. S. Wright has sold out his interest in the firm of Wright & Johnson at Morton, Kan. The business will be operated hereafter under the style of the Johnson Grain and Coal Co.

J. R. Williamson, formerly of Harper, Kan., who recently purchased a membership in the Wichita, (Kan.) Board of Trade, is planning to erect a new elevator in that city. The exact site is as yet problematical.

G. H. Birchard, of Lincoln, Neb., is erecting a 20,000-bushel iron-clad elevator for the Jones Grain Co. at Reserve, Kan. The building is 30x30x34 ft. to the square, on concrete foundation, and will have a 10-horse-power gasoline engine, 4-ton wagon scale,

600-bushel hopper scale, No. 34 separator, passenger elevator and one stand of elevators with 6x11-in. buckets.

The Burrell Engineering & Construction Co. has the contract for remodeling the Rogers Elevator at St. Louis, Mo., operated by Langenberg Bros. They will put in two elevator legs and a cupola. The capacity of the house is 500,000 bushels.

The Conrad Grain Co. is building a storage elevator at Wood River, Neb. G. H. Birchard, of Lincoln, Neb., has the contract for the house, which will be erected on concrete foundations, using steel conveyors. The equipment will include a No. 34 Barnard & Leas separator.

The project to erect an elevator at Frizell, Kan., which was recently rejected by the Pawnee County Grain & Supply Co. of Larned, Kan., has been taken up by local parties at Frizell and a stock company is being organized. E. E. Frizell and A. H. Lupfer have charge of the proposition.

G. H. Birchard of Lincoln, Neb., is building a 60,000-bushel elevator at Aurora, Neb., for the Aurora Milling Co. The building measures 30x40 feet on the ground, and 60 feet to the square, and will be iron-clad. It will be equipped with solid concrete hoppers, one stand of elevators, with 6x14-inch buckets and rope transmission.

At Greenwood, Neb., G. H. Birchard is erecting the elevator for the Farmers' Co. The house, which is of 25,000 bushels capacity, measures 30x32x36, and is equipped with concrete hoppers, a 10-horse-power Fairbanks gasoline engine, 600-bushel hopper scale, 4-ton wagon scale, No. 34 Barnard & Leas Separator, passenger elevator and two stands of elevators, with rope transmission.

The Union Elevator and Grain Co. of Omaha, Neb., has been incorporated with \$50,000 capital stock by W. H. Holliday, M. A. Hall and R. G. Young. The new company has purchased the elevator of the Nebraska Hay and Grain Co. at Council Bluffs, Iowa, which will be enlarged to meet the needs of the new owners. The company has made application for membership on the Omaha Grain Exchange and will have offices in the Brandeis Building.

The farmers at Juniata, Neb., have awarded the contract for their 20,000-bushel elevator to G. H. Birchard, of Lincoln, Neb. The house will be 30x30 feet on the ground, and 34 feet to the square, full iron-clad and erected on deep concrete hoppers, with double concrete dump hoppers of 1,000-bushels capacity. It will be equipped with a 12-horse-power Fairbanks gasoline engine, Barnard & Leas Separator, passenger elevator and Fairbanks wagon and automatic scale, and will have two stands of elevators.

The contract for the Farmers' Elevator at Doniphan, Neb., has been awarded to G. H. Birchard of Lincoln, Neb., and work will shortly commence on the house. The elevator will have a capacity of 16,000 bushels and be full iron-clad and lightning proof. The building will measure 22x26 feet and be 32 feet to the square, with deep concrete hoppers and 1,000-bushel dump hoppers. It will be equipped with a 10-horse-power gasoline engine, 4-ton wagon scale, 500-bushel Fairbanks hopper scale, No. 34 Barnard & Leas separator, passenger elevator and one stand of elevators with 11x16-inch buckets.

THE DAKOTAS.

A farmers' elevator is to be built at Rhame, N. D.

An addition is to be built to the elevator at Twin Brooks, S. D.

The new Farmers' Elevator at Crete, N. D., has opened for business.

The Duluth Elevator at Nash, N. D., has been closed for the season.

John Frehrer is considering the erection of an elevator at Mott, N. D.

The Western Lumber & Grain Co. is planning to build an elevator at Bowman, N. D.

The Farmers' Company has commenced business in its new house at Beresford, S. D.

The Equity Farmers' Elevator Co. has purchased the Lyon Elevator at Garrison, N. D.

The farmers' company at Cresbard, S. D., will shortly commence the erection of an elevator.

A new 20,000-bushel elevator is being erected at Holabird, S. D., by one of the line companies.

J. C. Stiteler, Frank Philips and others have organized a farmers' elevator company at Stiles, N. D.

The Gallup Farmers' Elevator Co. has been incorporated at Ashton, S. D., with \$10,000 capital stock.

The Sorenson Grain Co. of Duluth, Minn., is building two new 30,000-bushel elevators near Bordulac, N. D.

Farmers in the vicinity of Hecla, S. D., are organizing to either buy or build an elevator at that place.

The Farmers' Elevator Co. of Vermillion, S. D., will at once rebuild its elevator destroyed by fire at that point on April 4. The company is planning

to build a structure of 25,000-bushels capacity, constructed of concrete and steel throughout.

Lee & Prentis are planning to erect an elevator on their ranch near West Riverside, S. D., this coming season.

The old Huntington Elevator at Yankton, S. D., one of the first in that section of the country, is being torn down.

An addition is being built to the Farmers' Elevator at Max, N. D., for the purpose of housing a large feed mill.

The Hall & Steiner Elevator Co. has sold its house at Upham, N. D., to the St. Anthony & Dakota Elevator Co.

The Farmers' Elevator Co. of Edgerly, N. D., is planning to erect a 45,000-bushel house. The site has not yet been selected.

A number of improvements are being made at the Farmers' Elevator at Burbank, S. D., with a view toward better fire protection.

Farmers in the vicinity of Cavour, S. D., have organized and are planning to erect an elevator. A. Batis is secretary of the company.

The Farmers' Elevator Co. of Verdon, S. D., is planning to erect a new 30,000-bushel house adjacent to its present elevator at that point.

T. A. Cameron has disposed of his interest in the elevator at Fairdale, N. D., to his partner, Oliver Knutson, and will remove to Crystal, N. D.

The Farmers' Elevator Co. of Mott, N. D., will commence building at that place as soon as the railroad switches have been definitely located.

The Farmers' Co-operative Elevator Co. is planning to increase the capacity of its house at Geddes, S. D., from 20,000 bushels to 50,000 bushels.

The Imperial Elevator at Knox, N. D., has been closed and will not re-open for some time. Agent Oien has been transferred to Pleasant Lake, N. D.

The Cleveland Farmers' Elevator Co. of Cleveland, N. D., has been incorporated with \$25,000 capital stock by W. F. Mashum, W. R. Hills and Charles Colton.

It is reported that F. H. Shepard will build a 35,000-bushel house at Zenith, N. D. Mr. Shepard recently purchased a new 40,000-bushel elevator at Belfield, N. D.

The Farmers' Elevator Co., of Volin, S. D., has contracted for the erection of an elevator at that place. It is planned to have the house ready for business in June.

A farmers' elevator company has been formed at Mercer, N. D., and will be incorporated for \$25,000. It is planned to erect a 30,000-bushel house, equipped with a cleaner.

Duncan Bissell and P. J. Nelson of Wheatland, N. D., and A. D. Cameron of Erie, N. D., have incorporated the Mason Farmers' Elevator Co., with a capital stock of \$25,000.

Farmers' elevator companies are in prospect at the following places: Bonesteel, Iroquois and Turton, S. D., and Balfour, Belmar, Kent, McVille and Agate (mail Mylo), N. D.

The Columbus Farmers' Elevator and Mercantile Co. of Columbus, N. D., has been incorporated with \$50,000 capital stock by Evan Stompro, Albert Ziegenhagen and Charles Eayrs.

Work has commenced on the new 15,000-bushel elevator for the Kimball Roller Mills at Kimball, S. D. The Younglove Construction Co. of Sioux City, Iowa, has the contract.

Farmers in the vicinity of Streeter, N. D., have formed the Independent Elevator Co., and have purchased the Lyon Elevator at Streeter. This gives the town three independent elevators.

The C., M. & St. P. Railway has granted a site at Webster, S. D., to the Farmers' Grain and Fuel Co., and an elevator will be erected at once. W. J. Marshall, formerly of Waubay, S. D., will be in charge.

The Pacific Elevator Co. will build a 25,000-bushel house at Wetonka, S. D., to replace the one destroyed by fire on March 4. The company is also planning a number of additions to its plant at Aberdeen, S. D.

The report, current last month, that D. L. Lytle had disposed of his elevators at Dickinson and Beach, N. D., has proved to be without foundation. Mr. Lytle is planning to erect three new houses in Montana.

The recently organized Farmers' Elevator Co. of Plankinton, S. D., has purchased the Truax Elevator at Plankinton, paying \$4,000 for the property.

CANADIAN.

The Islay Elevator Co. of Islay, Alberta, has incorporated.

A farmers' elevator company is being organized at Strome, Alberta.

The Sunny Belt Elevator Co. has moved its headquarters to Calgary, Alberta. The company is erect-

ing 30,000-bushel elevators at Carstairs, Magrath, and Crossfield, Alberta.

The Vancouver Elevator Co. is building a 35,000-bushel house at Claresholm, Alberta.

The Alberta Pacific Elevator Co. will enlarge its plant at Red Deer, Alberta, by one-third.

A farmers' elevator is to be built at Carlyle, Sask. S. J. Kent is in charge of the proposition.

The Imperial Elevator Co. is planning to erect a 40,000-bushel elevator at Carstairs, Alberta.

The Westminster Elevator Co. of Westminster, B. C., has been incorporated with \$250,000 capital stock.

The Saskatchewan Western Elevator Co., Ltd., will erect an elevator at Melville, Sask., during the summer.

The Ogilvie Milling Co. is perfecting plans for the erection of a 300,000-bushel fireproof elevator at Winnipeg, Man.

The MacGregor Grain Growers' Elevator Co., Ltd., has been incorporated at MacGregor, Man., with \$5,000 capital stock.

Repairs and improvements costing in the neighborhood of \$4,000 have been made in the C. P. R. Elevator at Prescott, Ont.

A recent windstorm damaged the grand Trunk Elevator at Port Colborne, Ont., the north side of the building being blown down.

Parrish & Heimbecker, Ltd., Winnipeg, Man., have incorporated with a capital stock of \$100,000 to carry on a general grain business.

The Alberta Pacific Elevator Co. and the Alberta Grain Co. have each applied for elevator sites on Burrard Inlet, at Vancouver B. C.

Work has commenced on the new elevator of the Alberta Grain Co. at Carstairs, Alberta. An elevator will also be erected at Gleichen.

The contract for the building of the new 2,000,000-bushel elevator for the Canadian Pacific at Flat Point, Victoria Harbor, Ont., has been awarded. The contract price is in the vicinity of \$1,000,000.

The settlers at Mozart, Sask., are desirous of obtaining an elevator for that place. It is said that nearly 8,000 acres are under cultivation in that vicinity, with no elevator to handle the crop.

W. J. Bettingen & Co. are planning to erect a number of elevators in southern Alberta during this season. Among the points determined on are Carstairs, Crossfield, Strathmore, Gleichen, High River, Cayley, Nanton, Parkland and Warner.

It is reported that the Feavey Co. of Minneapolis will construct about thirty-five elevators in western Canada during the summer. Twenty houses will be along the Canadian Northern, and fifteen along the Grand Trunk Pacific in Saskatchewan.

The recently formed National Elevator Co., of Buffalo, N. Y., is planning to begin construction work in Western Canada at once. John R. Brodie, of Brandon, Man., general manager of the company, is authority for the statement that 100 new elevators will be built in time to handle the 1909 crop.

[For the "American Elevator and Grain Trade."]

ST. LOUIS GRAIN AND FLOUR NOTES.

BY L. C. BREED.

The house committee recently reported favorably a bill prohibiting purchasers of grain, seed, hay or coal from deducting any amount of the actual weight or measure of the commodity under claim of right to do so by reason of any custom or rule of a Board of Trade on any pretense whatsoever. The penalty for violation is fixed at from \$10 to \$100. The bill also forbids any broker or agent from making such deductions. It is contended that Kansas City market alone permits this to be done.

The Senate did not pay much attention to the protests of the Merchants' Exchange of St. Louis and the Boards of Trade of Kansas City and St. Joseph when it recently passed the "grain-weighing bill" by a vote of 19 to 5. This is the same one that was prepared by the Board of Railroad and Warehouse Commissioners two years ago, which after its passage was declared unconstitutional by the Supreme Court. Senator Anthony stated it would save for the farmers 500,000 bushels of wheat annually through having the Commission take charge of private elevators and superintend and make the grain dealers pay for weighing. Senator Methudy, on the other hand, claimed that the Board of Railroad and Warehouse commissioners was a worthless body, so far as doing the state any good was concerned, and that the grain trade of St. Louis had been increased through the supervision of weighing by the St. Louis Exchange. It is expected that the House will defeat the bill.

The stock of contract wheat at St. Louis is the smallest in years, in common with Kansas City, though the supply at the city by the Kaw is more than double that of St. Louis. The entire holdings here would be only a fair stock for a single grain merchant of moderate capital.

A list of the prices at which No. 2 red wheat has been sold at St. Louis during a period of fifty years has recently been prepared in Secretary Morgan's office. It appears that in 1867 the Standard Milling Company paid \$4 per bushel and the Plant Milling Company \$3.90. Mr. Plant states that in New York City, their flour was sold that spring for \$25 per barrel. It is proper to take into consideration the fact that the country at that time had not gotten back to a gold basis for its circulating medium.

A member of one of the old grain houses remarked the other day that in furnishing samples, particularly in case of the purchase or sale of grain outside the city, lots of trouble and loss would be saved by adopting the rule to send samples at least double the size of what is ordinarily done except where the stuff runs uniform or is contract grade.

Some of the members of the Exchange think it is high time that a change in the rate of commissions charged for the sale of grain should be made to more nearly conform to the higher cost of living and doing business. The farmers also are getting better prices for their grain and can well afford to stand a little advance. These commission men claim the rate should be made a percentage instead of a per bushel basis. This is certainly an equitable proposition, as it is absurd to get only the same commission whether wheat, for instance, sells at 50c per bushel or \$1.50. On a percentage basis, the matter of interest on advances might be waived.

The Traffic Bureau for some months has used a black-board on the floor to announce important changes in rates, but Commissioner Lincoln takes exception to its appropriation by the base ball men on 'Change in order to give advance advices of the meets of their club.

A fund is being raised by subscription for the purpose of entertaining in June delegates from the grain exchanges of Chicago, Minneapolis, Kansas City, Omaha and Lincoln. The plan contemplated is an afternoon and evening excursion on the Mississippi River, for which the new boat, City of Alton, will be chartered.

Ed M. Flesh, vice president of the C. H. Albers Commission Company, recently left for a visit of five or six weeks at Elsinor, California, where the president of the company owns an extensive ranch.

H. B. Moore, of J. E. Saper & Company, Boston, was a recent visitor on 'Change.

[For the "American Elevator and Grain Trade."]

GRAIN TRADE ITEMS FROM OHIO.

BY H. L. SPOHN.

A heavy Eastern demand for corn has run the local supply down to a small amount, there being at the present time not to exceed 50,000 bushels here. The dull trading in the wheat market recently has served as a stimulus to corn, and a very respectable business has been carried on. During the first week of May the outgoing shipments amounted to 62,000 bushels, while the receipts aggregated but 47,700 bushels. The acreage of Ohio corn will be considerably more this year than last, and the present prospects are favorable for advantageous planting.

The Ohio crop report for May shows a material improvement in growing wheat, but the showing is still behind that of last year. It gives the wheat condition as 66 against 92 a year ago, but a gain of 4 over April of this year. The acreage of oats amounts to 1,324,000 acres, or 104 per cent of last year's area. The increased acreage is due to wheat failure.

Trading in wheat has been light, owing to a marked scarcity of cash wheat, but 30,000 bushels coming during the entire week of May 7. Local millers have sold some wheat recently, evidently deeming it better business to take the profit there than to grind it up for a dead flour market. All the mills are running light and there is no trouble in securing all the wheat needed to supply the limited flour demand. Careful investigation shows that local mills are in fact grinding only as flour orders come in, a recent tour of the local mills showing only 4,000 barrels on hand. Just how close they are running will be appreciated when it is said that this is less than the capacity of the same mills for one day. Farmers are selling very sparingly of their wheat, if they have any to sell, which is thought doubtful, as every inducement has been offered to bring it out without results. The local supply is now about 265,000 bushels, with very little No. 2 Red on hand.

The Eastern demand for Ohio oats holds up well, despite the receipts of the cheaper Argentine variety, and a nice business has been transacted by the local grain dealers. Receipts for the past week amounted to 25,500 bushels, with shipments of 18,500 bushels. There is now, May 7, on hand here about 90,000 bushels, but the supply is being gradually reduced.

The year thus far has been a banner one so far as clover receipts are concerned. So far more than 150,000 bags have found their way in and the receipts are still unusually heavy. Shipments up to date have reached 118,093 bags, as compared with 32,041 bags last year.

D. E. Parsons, representing the Travis-Emmick Company, was recently chosen to membership in the Toledo Produce Exchange. This firm owns a number of elevators in northwestern Ohio and contiguous territory, and does a large grain business in this section.

Chief Grain Inspector E. H. Culver, president of the Grain Inspectors' National Association, will have charge of the awarding of prizes for the Toledo grain exhibits at the Lucas County Fair next fall. The county commissioners have voted a tax which will net about \$9,000, and other monies have been secured to make the exhibit one of the best ever held in this section of the country. Farmers, grain dealers and millers of Ohio, Indiana and Michigan will be eligible to contest for the various prizes.

John Richards, the prize corn and wheat raiser of Van Wert county, Ohio, is dead. He was born in Wales 81 years ago and was buried at Venedocia, O., the Wales colony where he has resided since 1853.

Leonard Scott, of West Liberty, O., has been given the office of entomologist with the Ohio Agricultural Experiment Station at Wooster, with an annual salary of \$900.

A storm recently visited the village of Zemert, O., doing much damage and destroying the famous old Zemert mill, a landmark in that vicinity.

Major D. N. Bash, retired army officer, passed away at Pass Christian, Miss., where he had been spending the winter. He was a member of the firm of J. Bash & Co., Toledo, grain merchants. He recently resided in Peoria, Ill.

A suit to recover a balance of \$2,350 lost in dealing in grain margins was recently filed in the common pleas court of Toledo by Charles W. Barnes against the firm of John Mills & Co. Barnes alleges that his total losses amounted to \$9,825, of which \$6,975 has been returned by Mills & Co. He says that each and every transaction between the firms was a bet or wager and that under the Ohio law he is entitled to recover his money back. The case is being watched with interest by grain men.

A 250 barrel cement water tank at the J. W. Whitney elevator, Oakwood, O., became weakened by the recent windstorms and collapsed recently. The engine room at the elevator was inundated by the deluge of water that fell from a height of 30 feet and Frank Harmon, a teamster, narrowly escaped death from the falling mass.

Charles Mills, a workman, had his right hand caught while attempting to adjust a clogged elevator screw at Rudolph's elevator in Bowling Green, O. The hand was badly lacerated but he will not lose it.

Jesse W. Young severed his connection with the Paddock-Hodge Grain Co., of Toledo, to go with the Toledo Grain & Milling Co., on May 10. He has been connected with the former firm for the past ten years and is now its vice-president.

Henry Line, a farmer, fell into an open shaft at the Santa Fe elevator and mill at Wapakoneta, O., recently and was literally ground to pieces. He was unmarried.

More than local interest was attached to a suit recently tried in the common pleas court at Napoleon. John J. Ross, who had sold eleven loads of corn to the Southworth-Rice Elevator Co. of Deshler, brought the action to recover payment which was refused by the company, it claiming that one of the loads contained a scoop shovel which in dumping was conveyed to a sheller and ruined the machine. The jury gave Ross a verdict for the value of the corn.

Adam Wilhelm, a pioneer business man of Defiance, O., recently succumbed to debilities of old age at his home in that city. He had resided there since 1840 and was at one time the owner of the Defiance & Erie Mills. He is survived by four children.

Ten varieties of oats have been planted at Findlay's new experiment sub-station and these will constitute the only experiments carried out there this year. Arrangements have been made for extended operations next year when upwards of 40 acres will be devoted to experimental work.

Farmers of Pennsylvania raised last year \$170,415,840 worth of staple crops—hay, corn, oats, barley, buckwheat, potatoes, rye, tobacco; and excepting for buckwheat, they received for the average product a higher market price than the average selling rate in the United States. From hay alone, the tillers of the "Keystone" state's soil realized \$56,124,000, while from 1,500,000 acres of wheat \$29,121,000 went into their tills.

Gov. Marion E. Hay, of Washington, announces he will appoint S. C. Armstrong, now division superintendent of the Pacific Coast Elevator Company at Colfax, to be state grain inspector of Washington. Mr. Armstrong is one of the most widely known grain men in the state, having been with the Pacific Coast Elevator Company for seventeen years, four years as local agent at Albion and thirteen years as superintendent of the division north of Snake River.

THE EXCHANGES

The Vancouver Grain Exchange, Ltd., Vancouver, B. C., has been incorporated with a capital stock of \$10,000.

F. P. Manchester succeeded E. J. McVann as secretary of the Omaha Grain Exchange on May 1, Mr. McVann going to the Traffic Bureau of the Omaha Commercial Club as manager.

G. C. Mountcastle, T. A. Edwards, Thomas B. Owens, R. M. Kelso and Paul Gruseman have been elected directors of the Fort Worth (Texas) Grain and Cotton Exchange for the ensuing year.

W. O. Pringle and Horace L. Wing, both members of the Chicago Board of Trade, have formed a partnership to transact a general commission business, with offices at 65 Board of Trade building.

Members of the Philadelphia Commercial Exchange held their annual outing, planked shad dinner and baseball game at Essington on May 7. Over fifty members attended the jollifications.

The "American Elevator and Grain Trade" wishes to extend its thanks to Emil P. Albrecht, secretary and treasurer of the Philadelphia Bourse, for the Eighteenth Annual Report of that body, recently received at this office.

On May 1 a unique record was made in Minneapolis, not a single bushel of wheat being delivered, and only 95,000 bushels of oats was transferred for delivery at the Chamber of Commerce, the smallest grain turning of record.

A board of trade has been organized by the Chamber of Commerce and local grain men at Amarillo, Texas. A state grain inspector will be stationed at Amarillo. The new board will have wires from the Chicago and Kansas City markets.

An agitation has been started among the grain dealers of Portland, Ore., for the formation of a stock company to take over the Merchants' Exchange in that city and change its plan of operation, limiting membership to the grain shipping and lumber trade.

The recent proposed change in the rules at Toledo, with a view to making No. 1 Northern spring wheat a contract grade, has been turned down by the directors of the Toledo Produce Exchange. As heretofore, No. 2 Red soft winter will be the only contract wheat grade in Toledo.

The Buffalo Chamber of Commerce is taking steps to secure an amendment to the present tariff bill, with a view to placing barley on the free list. The present duty is 30 cents under the old Dingley Bill, and the proposed rate, originally put in at 15 cents, has been boosted to 24 cents.

Secretary John R. Lofgren of the Peoria Board of Trade reports that the uniform grades of the National Grain Dealers' Association will go into effect on that exchange on July 1. During April two new members were admitted to the Peoria Board of Trade, R. M. Hall and H. W. Darr.

The special committee of the New York Produce Exchange has recommended the sale of the present building and the land on which it stands at the price of \$6,000,000. The exchange is planning to build a new structure, more adapted to its needs, on the 20,000 square feet which it owns adjoining the present site.

The grain committee of the Philadelphia Commercial Exchange has announced that grain inspection charges at an export elevator will be 30 cents a car, compulsory. Outward inspection from export elevators will be 20 cents per 1,000 bushels and on western inspected grains a certificate to that effect will be issued free.

The following amendment to the rules of the Chicago Board of Trade was posted recently and will be voted upon at an early date: "The delivery of samples of grain in the Exchange Room by non-members through any department of the Board of Trade in competition with the members of the Board of Trade, is prohibited." It is the present custom of the state inspection department to deliver all samples of grain from the grain inspection department to the central office from which they may be obtained by the commission merchants who might wish them, by the payment of a small fee. The amendment makes the state service subservient to that of the receivers agents, who are members of the Board.

A hearing is now in progress before the Interstate Commerce Commission on the case of the Philadelphia Commercial Exchange against the Pennsylvania, the Reading and the Baltimore & Ohio in the matter of alleged discrimination in the storing of flour. The committee of the Exchange which investigated the matter alleged that the city of New York receives a free storage for thirteen days, while Philadelphia is allowed only four days. According to members of the committee they protested to the railroads to allow them the long storage, which they had enjoyed prior to April 1, 1907, when it was taken from them under the pretext that all ports would receive the same privilege. The railroads, however, have done nothing.

CHANGES IN EXCHANGE MEMBERSHIP.

Cincinnati.—Superintendent C. B. Murray of the Cincinnati Chamber of Commerce reports the following additions in the membership of the Chamber during April: Ira J. Prugh, Frederick W. Richt, Horace Baker, of the C. N. O. & T. P. Ry., Leo Blum, Jr., of the Butcher Packing Co., G. W. Pohlman, Jr., of the National Insurance Co., Julius A. Wiederstein, of John Hoffmann's Sons, Simon Hubig, of the Hubig Pie & Baking Co., Frederick Vayhinger, Frank A. Raabe, of F. Jelke & Son Co., all of Cincinnati, and Clarence W. Stuart, of Hunting, W. Va.

Milwaukee.—The following is a list of the new members admitted to the Milwaukee Chamber of Commerce during the month of April, as reported by Secretary H. A. Plumb: R. J. Wirtz, B. F. Benson, R. W. Dillon, E. L. Welch, A. P. Steffen and L. Lindauer. Withdrawals within the same period are: J. J. Miller, L. N. Loomis, D. Becker, J. C. Geraghty, E. P. Mueller and D. J. Coughlin.

Minneapolis.—E. S. Hughes, Assistant Secretary of the Minneapolis Chamber of Commerce, reports as new members of the Chamber: Messrs. N. M. Young of Duluth, Minn., and C. C. Ladd of Minneapolis. The rate of commission on flax has been changed from 1 per cent of the net proceeds to \$.01 per bushel.

Montreal.—Secretary George Hadrill of the Montreal Board of Trade reports the following new members admitted during the month of April: C. F. Medbury, of the Canadian Westinghouse Co., E. Barsalou, of Messrs. J. Barsalou & Co., H. W. Cowan, of the Inland Navigation Co., J. S. Bonar, of the Montreal Transportation Co., William Percival, of Messrs. Percival Bros., Arthur Mireau, New York Laundry, William Johnson, John P. Atkinson, of The N. K. Fairbanks Co., William J. Stuart, of Messrs. Stuart & Herbert, N. G. Valiquette, of Messrs. N. G. Valiquette, Ltd., P. Girard, of Messrs. Girard & Gagnon, Ltd., O. Lemire, of Messrs. O. Lemire & Co., R. W. Shepherd, of Messrs. G. Ross Robertson & Son, all of Montreal, and H. W. Cowan, of the Inland Navigation Co., of Hamilton, Ont. There were no withdrawals from the Montreal Board of Trade during April.

New Orleans.—The New Orleans Board of Trade admitted the following new members during the month of April, as reported by Assistant Secretary C. M. Kearney: South Atlantic Steamship Co., American Paint Works, John B. Honor Co., Ltd., Louis P. Rice & Co., and C. A. Hartwell.

Omaha.—New memberships in the Omaha Grain Exchange during the month of April as reported by Secretary F. P. Manchester, are: Chauncey Abbott, of the Wells-Abbott-Nieman Co., Schuyler, Neb., Frank H. Brown, of F. H. Brown & Co., of Omaha, Rudolph Beal, of the Beal-Vincent Co., of Omaha, and James Swanick, representing the McCaull-Dinsmore Co., of Minneapolis.

St. Louis.—Secretary George H. Morgan, of the St. Louis Merchants' Exchange, reports two new members during April: Edwin Stanard, of the Stanard-Tilton Milling Co., and D. J. Canty, of the Wooley Electric Co. There have been four withdrawals from the exchange: James J. Gilmartin, Adolph Scharff, W. H. Ryan and Phil C. Taylor. There has been no recent change in the rules.

NEW OFFICERS AT NASHVILLE.

The following officers were elected for the ensuing year at the annual meeting of the Nashville Grain Exchange, held on April 20: Byrd Douglas president (re-elected); John H. Bell, vice-president; W. G. Miller, secretary, and the following directors: H. H. Hughes, W. G. Miller, Alex Rothchild, A. C. Hardy and F. E. Gillet.

A proposition to erect a \$700,000 grain exchange building was brought forward by H. H. Hughes and met with hearty approval. A committee of five, composed of H. H. Hughes, chairman; Byrd Douglas, W. M. Hogan, Nat Chairs and W. J. Miller, as appointed to prepare a report on the proposition, which will be submitted to the members of the Exchange at a meeting to be called as soon as the necessary data has been collected.

STANDING COMMITTEES AT MILWAUKEE.

President W. M. Bell of the Milwaukee Chamber of Commerce has appointed the following standing committees for the year:

Grain inspection and weighing, C. F. Glavin, A. K. Taylor, D. G. Owen, J. M. Reibs, Jr., and J. J. Brooks; flour inspection, John F. Kern, Ferdinand Leu, W. H. Manegold, Edward Shackell and Philip Orth; provision inspection, Alfred Dawson, Patrick Cudahy, A. G. Bodden, George A. Adlam and John Elser; arbitration of grain and clover seed, Louis L. Runkel, W. A. Hottensen, S. G. Courteen, L. Tewelles and G. C. Holstein; call, H. M. Stratton, H. H. Peterson, Oliver C. Owen, L. R. Fyfe and W. E. Schroeder. The committees of the board of directors are: Finance, E. H. Dadmun, C. W. Schneider and E. J. Furlong; furniture and rooms, Clark Fagg, J. J. Crandall, G. C. Holstein and P. C. Kamm; rules and regulations, E. J. Furlong, P. P. Donahue

and H. A. Plumb; supplies, C. W. Schneider, Clark Fagg and J. N. Reibs, Jr.; transportation, Robert Eliot, P. P. Donahue and T. C. Coughlin; membership, Andrew McCabe, S. W. Tallmadge, M. S. Lowry, W. J. Armstrong and James B. Leedom; weather reports, J. M. Crittenden, D. E. Lewis and A. Flertzheim.

Frank F. Clapp, the veteran chief grain weigher, was reappointed for another term, and James Connell was appointed chief inspector of grain and provisions to succeed Frank D. Hinkley, resigned.

THE WHEAT DUTY IN THE EAST.

Following the action of the Boston Chamber of Commerce, on April 22, the flour trade of the New York Produce Exchange met and adopted a resolution in favor of the immediate abolishment of the duty of 25 cents a bushel on wheat. The resolution follows:

"The members of the flour trade of the New York Produce Exchange, in meeting assembled, desire to call the attention of Congress and the general public to some facts in regard to wheat.

"This country is outgrowing its wheat supply, partly because of the increase in population, and also because of the gradual deterioration in the quality of the soil in many States. In a few years this country may have very little wheat to export and it will find it profitable to purchase wheat from its nearest neighbor, who produces wheat of good quality and in large quantity and has a large and uncultivated area yet to be laid out in farms. The present duty of 25c per bushel makes importation impracticable now.

"Furthermore, because of the relatively narrow margin between our supply and demand, the door is open for a speculator to control the market to his great advantage, causing disaster to legitimate business, especially when the crops are a little below normal. A partial and natural remedy for this condition is found by taking off the import duty on wheat, as the resultant increase in the available supply would deter any speculator from attempting to buy all the wheat in the world. Be it, therefore

"Resolved, That the flour trade of the New York Produce Exchange is in favor of abolishing the duty on wheat now, and hereby request the members of both houses of Congress to give the matter immediate attention; that copies of this resolution be forwarded to the chairman of the Ways and Means Committee and to the press; that the president of the Exchange be requested to appoint a delegation to present the matter to the members of Congress in such manner as they may deem to be the most effective; and that the board of managers be requested to take such action as in their wisdom may be deemed necessary to promote the interests of the various trades of this Exchange concerned."

On May 3, the Philadelphia Commercial Exchange adopted resolutions favoring reciprocity in trade with Canada, as follows:

Whereas, the Board of Directors of the Commercial Exchange of Philadelphia at the solicitation of other important commercial organizations of similar character, has adopted resolutions favoring closer trade relations with Canada and asking that in the proposed revision of the Tariff, Congress shall empower the President to enter into and consummate negotiations with the Government of the Dominion, for the adoption of a reciprocity treaty advantageous to the trade of both countries; and

Whereas, Canada has adopted, in 1907, a new customs tariff which contains three different sets of tariff rates, ranging from the highest to the lowest rates of duty, under which tariff the trade of the United States is now subjected to the highest rates, while the trade of Great Britain and France (the latter under a pending treaty) is favored with the lowest; and

Whereas, sound statesmanship and wise policy both indicate that the present illiberal policy of the United States towards Canada should be at once exchanged for that which would permit the most liberal trade relations to the interchanged commerce of the two countries, and particularly at this time when the people of the United States need the surplus product of grain which Canada has to sell, and the Government of the United States is seeking new means for providing revenue; therefore

Be it resolved, that the Commercial Exchange of Philadelphia does hereby petition the Government to legislate, through the accustomed channels, for a treaty of reciprocity with the Government of the Dominion of Canada, by which all the products of that country shall be given entry into the territory of the United States upon the payment of tariff duties not exceeding those charged by the Government of the Dominion upon similar articles that are the product of the United States.

And, be it further resolved, that copies of this series of resolutions be sent to the President of the United States, the members of the United States Senate and House of Representatives, and to the Associated Press.

Some Kentucky farmers are contracting to sell the wheat now growing at \$1 per bushel from the thresher.

COMMISSION

Lawson Bros. & Co., of Chicago, have opened a branch grain office at Evansville, Ind., in charge of Wm. Roovaart.

E. W. Dennis, who has been with Pringle, Fitch & Co., of Chicago, since the house started, went with Harris, Winthrop & Co., on May 1.

Henry G. Kress, dealer in grain and mill feed on the Produce Exchange, New York City, recently made an assignment to Frederick W. Lorch.

Andrew & Page is the name of a new grain commission house at Buffalo, N. Y. At the head of the firm is C. H. Arthur, a former Buffalo grain dealer who has been out of the trade for some time.

J. Wm. Mills, formerly in the grain business at Brice, Ill., has accepted a position as traveling representative with Gardiner B. Van Ness, of Chicago, and will represent him in Iowa and the Northwest.

The Knox Grain Co. has been organized at Nashville, Tenn., with a capital stock of \$15,000 to carry on a general grain business. The officers are W. E. Knox, president, and P. W. Pritchard, secretary and manager.

E. G. Cool, of Ft. Dodge, Iowa., one of the most popular of Western grain travelers and until recently with T. E. Wells & Co., of Chicago, has gone with Phillip H. Schiffelin & Co., of Chicago and will represent them in Iowa.

E. M. Slickinger has purchased the interest of W. F. McCullough in the Tri-State Grain Co., of Wichita, Kan., and has become sole owner of the business. The style of the firm remains unchanged and business is continued at the old location.

E. A. Nordstrom has disposed of his interest in the Nebraska Hay & Grain Co., of Omaha, Neb., of which he has been manager and has organized the E. A. Nordstrom Grain Co. The firm will carry on a general grain business with offices in the Brandeis Building.

Logan & Bryan, of Chicago, have increased their capital stock from \$500,000 to \$1,000,000. Ben B. Bryan will remove to New York, where he will make his headquarters, while the Chicago house will be in charge of R. W. McKinnon, T. J. Brosnahan and John Hill, Jr.

It is not often that souvenirs from Germany are sent out to the grain trade, yet such is the case with the lead pencil mailed recently to his customers by Gardiner B. Van Ness, of the Postal Telegraph Building, Chicago. It bears the firm's motto: "The best service—all the time."

The trades of L. L. Smith, grain commission of Chicago, were recently transferred to E. W. Wagner, Board of Trade, Chicago. The reason assigned was that that firm was a small one and its capital proved inadequate to the handling of its business in the recent wild markets.

Ennis & Stoppani, a "curb" grain and stock firm of Chicago and New York, recently made an assignment. Thomas Ennis and Charles F. Stoppani, both of New York, were the organizers of and active heads of the firm, which had been in existence more than twenty years. The amount involved was reported at between \$1,500,000 and \$2,000,000.

A new grain and stock brokerage firm known as Ellaire, Wellington & Co., has opened offices in the chamber of Commerce at Detroit, Mich. The members of the new firm are all well known in the grain trade and are A. J. Ellaire, F. H. Wellington and C. M. Curran. The active members of the firm are Alex J. Ellaire and F. H. Wellington.

George H. Daggett & Co., grain brokers of Minneapolis, withdrew from business on May 11 and assigned their trades to Hallett & Co. of that city, and on May 12 the George H. Daggett Company of Chicago transferred its business to the J. Rosenbaum Grain Company. The Chicago company is incorporated and managed jointly by Frank S. Daggett, treasurer, and F. W. Baynard, secretary. Both declared that the Chicago corporation is not in financial difficulties and that its business standing will not be affected by the Minneapolis retirement and this statement was corroborated by F. Uhlmann, secretary of the J. Rosenbaum Grain Company. George H. Daggett of Minneapolis is the president of both companies affected.

The Van Tassell Grain Co., of Peoria Ill., of which R. E. Van Tassell has been at the head for many years, has withdrawn its membership from the Peoria Board of Trade and gone out of existence. Mr. Van Tassell, who with the late J. H. Bunn, formed the firm of Van Tassell & Bunn about twenty-three years ago, has been in failing health for some time and has found it necessary to seek a milder climate. He will remove to Wenatchee, Wash., where he has purchased a ranch. Mr. Van Tassell is one of the well known grain men of central Illinois. He served as vice president of the Peoria Board of Trade for three terms and three years ago was elected to its presidency. His associ-

ates in the grain trade regret his retirement from their midst.

COMMISSION RATES LEGAL IN MINNESOTA.

The action brought by E. T. Young, as Attorney-General of Minnesota to dissolve the Duluth Board of Trade as a combination in restraint of trade, because it enforced a uniform commission charge for handling grain, has been dismissed by the Supreme Court of that state.

The court holds that the unification of charges by the Board for selling grain not analogous to the fixing of prices of commodities as forbidden by the anti-combination laws because the Board does not in part fix the prices of grain.

The court also negatives the charge of the Farmers' Exchange, which was influential in bringing the action, that the Board conspired to prevent the Exchange from holding a membership on the Board (the Exchange never applied for a membership); or to prevent the Exchange from having its grain handled or dealt in on the Board by threatening to stifle competition. The syllabus follows:

"1. A combination, contract or understanding, the direct and necessary effect of which is to stifle or restrict competition in trade or business, violates the anti-trust statute. (Chap. 259, G. S. 1894, Rev. L. 1905, Section 5168) whatever may have been the intention of the parties.

"2. A combination, the main purposes and effects of which are to foster the trade and increase the business of those who make and operate it and which only indirectly and remotely restricts competition in trade or business, is not a combination and conspiracy in restraint of trade within the meaning of the statute.

"3. An agreement or combination for the purpose of fixing and determining the value of wages or other charges for personal services is not within the prohibition of the statute.

"4. A combination formed by dealers in articles of a similar nature in a particular locality for the purposes of fairly regulating the methods of conducting business and providing for rules for fair dealing among members, but which exercises no improper control over non-members and does not control prices or production, is not in contravention of the statute.

"5. Rule 26 of the Duluth Board of Trade, which provides that all members of the board shall charge a uniform and determined rate of commission for selling grain for non-members, and provides penalties for the violation of such rule, is not in violation of the Minnesota anti-trust statute.

"6. The Duluth Board of Trade, as constituted under its charter and rules, is not a conspiracy or combination in restraint of trade, or which restrains, limits or interferes with free competition in the production of grain or in the purchase and sale of grain at Duluth.

"7. Rule 7 of the Duluth Board of Trade does not violate the Minnesota anti-trust statute, as its direct and necessary tendency is neither to restrain trade by preventing competition in the business of buying and selling grain, nor to limit, fix, control, maintain or regulate the price or production of any article of trade, manufacture or use bought and sold within the state, nor to prevent or limit competition in the purchase and sale thereof.

"8. The rules of the Duluth Board of Trade do not create or tend to create a monopoly. Trade and commerce is monopolized when, as a result of efforts to that end, previously competing businesses are so concentrated in the hands of a single person or corporation, or a few persons or corporations acting together, that they have power to practically control the prices of a commodity and to thus practically suppress competition.

"9. In a proceeding by the state against a corporation and its officers charging them with the violation of the anti-trust statute, the state may appeal from a judgment in favor of the defendants.

"Affirmed, Elliott, J."

PRESERVING BAGS.

Complaint having been made of the rotting of bags in the shipment of American wheat and other cereals, fertilizers, etc., the following from a British publication should prove of value as suggesting a means for their preservation:

"The report of the Western Australian department for mines for the year 1907 contains the following remarks by Mr. M. E. Mann, chief inspector of explosives, government analyst, and agricultural chemist: Great loss is annually incurred by the loss of superphosphate owing to the destruction of the bags in which the fertilizer is shipped and stored. The bags become destroyed by the free acid in the manure and repeated rebagging, and the use of double bags to guard against this loss has become a heavy tax upon the farmer. Experiments were made during the year (1907) to see if a method could be devised to avoid this waste, and bags treated in various ways were submitted to a practical

test. One bag, which had been treated with a strong solution of red gum kino, gave very satisfactory results. It was filled with a very acid superphosphate (which had completely rotted the double bags in which it had been imported), and was stored for 6 months surrounded and covered by other bags containing the same manure. At the end of 6 months the bags by which it was surrounded had rotted and given way in all directions, but the bag treated with kino came out as strong and intact as when it was put into the store. This test was so satisfactory that many of those interested in the superphosphate trade are applying the method of treatment on a large scale, and there is every reason to hope that the simple and inexpensive method of preserving the bags will be effective."

OBITUARY

Henry H. Poole, of Kewanee, Ill., for twenty years office manager of the Albert Dickinson Seed Co., in Chicago, died recently at his home in Kewanee. Pneumonia was the cause of his death.

Robert F. Pace, a grain broker and formerly prominent in Democratic politics at Mt. Vernon, Ill., drowned himself on May 5. He left a note saying he was despondent, and it is thought he was mentally deranged.

Daniel H. Hunt, a veteran of the Chicago Board of Trade, died recently at his son's home in Chicago. Mr. Hunt, who had been a member of the Board since 1855, retired from active business two years ago. A widow and one son survive.

The Hon. Francois Gosselin, a prominent flour and grain merchant at St. Alexandre, Que., and a member of the Quebec Legislative Council, died recently at the Hotel Dieu Hospital at Quebec. Mr. Gosselin was seventy-two years of age and had held numerous elective offices.

E. A. Gillespie, member of the grain firm of Passmore & Gillespie of Nottingham, Pa., died suddenly of heart disease in Philadelphia on April 29, at the age of forty-six. Mr. Gillespie had been a member of the Philadelphia Commercial Exchange for the past twelve years.

J. W. McCabe, for many years well known among the grain dealers of the Northwest, died recently at Minneapolis after a sudden and severe illness. For several years past Mr. McCabe has represented J. H. Dole & Co., the well known grain commission company of Chicago. Prior to that time he was for many years connected with W. F. Johnson & Co., of Chicago.

Edward E. Vinal, a member of the Boston Chamber of Commerce, and representative of the Chicago grain firm of E. R. Bacon & Co., committed suicide at his home in Dorchester, Mass., on May 4. He was suffering from melancholia. Mr. Vinal had formerly been with the firm of Albert Dodge & Co., and its successor, Wade, Reed & Co. He leaves a widow and one daughter.

William Hunneman, a member of the Chicago Board of Trade and well known in the grain and malting business of Chicago, died recently at Pomona, Cal. Mr. Hunneman was born near London, England, seventy-five years ago, and came to this country alone at the age of fifteen. In 1880, he went to Chicago, removing to California in 1890. A wife, two daughters and one son survive.

James H. Smiley, of the firm of Kersten & Smiley, elevator owners and grain dealers of Plainfield, Ill., died recently in New Mexico, whither he went last October in search of health. Tuberculosis was the cause of his death. Mr. Smiley was born in Plainfield on March 20, 1866, and spent his entire life there. He is survived by a widow and eight children, the youngest being three years of age.

John Dunwoody, secretary and treasurer of the St. Anthony & Dakota Elevator Co., and for years identified with the grain interests of Minneapolis, died at his home in that city last month, after an illness of two weeks. The cause of his death was meningitis, superinduced by grippe. Mr. Dunwoody was born in Philadelphia in 1846, but had lived in Minneapolis for many years. He leaves a widow and three daughters. A brother, William H. Dunwoody, president of the Northwestern National Bank, also survives.

William A. Reichardt, a well-known and highly respected citizen of Houston, Texas, and member of the firm of Reichardt & Schulte, wholesale and retail seed dealers, died last month at his home, 1620 Lamar Ave., Houston. Mr. Reichardt succumbed to an attack of pneumonia after an illness of one week's duration. Mr. Reichardt was born in Houston, on June 5, 1870, and passed his entire life in that city. He was a member of the Houston Turnverein, the Knights of Columbus, and took an active part in the Houston Light Guards, during the existence of that body. In his seed business, of which he was the leading partner, he took an active and successful part. His widow, two daughters, four sisters and four brothers survive.

HAY AND STRAW

The Grange Co. is planning to erect a \$17,000 alfalfa meal mill at Modesto, Cal.

W. W. Lockwood of Winfield, Kan., will shortly erect an alfalfa mill at Enid, Okla.

Wiley S. Keys is planning the establishment of an alfalfa mill at West Point, Miss.

The Purity Milling Co. has been organized at Manhattan, Kan., and will erect a 30-ton alfalfa mill.

The alfalfa mill of the M. C. Peters Mill Co. at South Omaha, Neb., was burned on May 6. The total loss will be very heavy.

The Topeka (Kan.) Alfalfa Mill, recently damaged by fire, is being rebuilt, and will be in running order again in a short time.

A. V. Carpenter, Charles Matson, F. E. McMillain and George McLagan of Pueblo, Colo., have incorporated the Colorado Alfalfa Mill Co.

Patrick Farrell of Cincinnati, Ohio, is planning to build a mammoth hay warehouse on the Southern Pacific between Chino and Ontario, Cal.

The hay warehouse owned by C. E. Patterson at Celeste, Texas, was destroyed by fire on April 18 with a loss of \$5,000. The insurance amounts to \$1,500.

Brown & Martin are installing a 35-ton alfalfa mill at Dodge City, Kan. The mill will cost \$10,000, and will be operated by a 55-horsepower electric motor.

The hay storehouse of the Thurber Co., at Strawn, Texas, was destroyed by fire recently. About 4,000 bales of hay and \$1,000 worth of machinery were destroyed.

The Christ. Hilke Hay & Grain Co., of St. Louis, Mo., has been incorporated with a capital stock of \$20,000. The incorporators are Christ. Hilke and Bernard F. Leifield.

The Great Western Milling Co., of Denver, Colo., has offered to build an alfalfa mill at La Junta, Colo., provided the industrial association of that place will secure 5,000 acres of alfalfa.

A large alfalfa mill is to be built at Alberta, Cal., in the near future. Electricity will be the operating power of the plant. The company has already made one contract for 20,000 tons of alfalfa for this season.

The Hoffman Milling Co., of Enterprise, Kan., is erecting a 75-ton alfalfa mill at that place. The building will measure 42x54 feet and 30 feet high, and will be constructed entirely of concrete and steel.

The Otto Weiss Alfalfa Food Co., of Wichita, Kan., recently established a warehouse and office in New York City. The Wichita mill is now turning out eight carloads of food, every twenty-four hours.

It is reported that large areas in Stanley and Lyman counties, South Dakota, are to be seeded to alfalfa this year, as a result of the successful experiments carried on with the crop in that section last season.

C. J. Harney has disposed of his hay business at Sycamore, Ill., to Herman Hartman, who will conduct it. Mr. Harney has accepted a position with the J. J. Considine Co., wholesale hay dealers of Chicago.

The last clutch of the federal quarantine on account of the hoof and mouth disease was lifted by a recent order of Secretary Wilson which removed the ban on the last portion of Pennsylvania. The local quarantine in Michigan will also be lifted shortly.

The stockholders of the Farmers' Elevators and Alfalfa Mill Co., of Minneapolis, Kan., have unanimously decided to rebuild the mill, which was destroyed by fire on March 31. Additional land has been acquired and the work of rebuilding has commenced. The company increased its capital stock from \$16,000 to \$25,000.

The Walla Walla Meal and Feed Co., at Walla Walla, Wash., has installed machinery to grind alfalfa. The plant will be operated by electricity. Within a few yards of this plant another mill is being put up by John Bachtold and associates. It will grind 300 tons a day and will be ready for work early this summer. The buildings are now nearly completed, and the machinery is on the ground.

HAY CONDITIONS.

In a bulletin dated April 21, P. E. Goodrich, secretary of the National Hay Association, tabulates some three hundred answers received to a series of questions sent out to the trade earlier in the month. In regard to the condition of timothy meadows, seven out of eight states report low condition, running from 74 in Illinois to 92 in Michigan. Only one state, Kansas, reports better than average, condition there being placed at 119. In regard to acreage, all eight states except Kansas, report a falling

off from last year, and all except Kansas and Virginia from a five-year average. The same holds true of clover conditions and acreage. In marked contrast to the falling off in hay conditions, the answers uniformly show an increase in the oats acreage, only one state, Arkansas, out of eleven tabulated, showing any appreciable decrease from last year, and Kansas alone showing a decrease from the five-year average. In this particular instance, the falling off can no doubt be attributed to the large increase of alfalfa culture in that State. In the course of the report, Mr. Goodrich comments on present hay conditions as follows: "From these reports and other sources it is our opinion that fully 25 per cent. of the timothy meadows were ruined by the drought last fall and 30 per cent. of the clover fields were destroyed by the dry weather or winter killed. We believe the farm reserves of hay in the central states is very low, below the average, while the eastern states appear to have a full average supply on hand."

NEBRASKA ALFALFA MILL.

Among the numerous new alfalfa mills in the West, none has been more successful during its short career nor has a more promising future than that of the Albion Alfalfa Meal Company of Albion, Neb., which began business on December 15, 1908. The city of Albion is in the midst of what is now considered to be the best alfalfa belt in Nebraska; at any rate, the mill finds plenty of the hay within economical hauling distance to keep the plant running at full capacity the year around.

The mill building proper, as shown in the illus-

cars of clover mixed we have stored in the Ottawa Valley, we have not one car of real No. 1 clover mixed hay that we can recommend for feeding dairy cattle.

"As a remedy, would it not be advisable for the Department of Agriculture to act in this matter along the same lines as they are doing regarding the dairy industry, namely instruct the farmers in proper methods of saving and baling hay. This is merely a suggestion, let us hear from others who have experienced the same trouble. I think if properly cured and baled the value of our hay crop would be increased 25 per cent."

ALFALFA DISEASE IN COLORADO.

In Bulletin No. 138 of the Agricultural Experiment Station of the Colorado Agricultural College, issued recently, a preliminary report is made on Prof. Paddock's investigations of the alfalfa disease, which has made its appearance in several places in that state within the last three seasons. The disease, which is of bacterial origin, is described as follows:

"At a distance, the disease can be recognized by the short, sickly growth of the first crop and the marked absence of that rich, deep green color and succulent appearance of a thrifty stand. Many of the plants do not get over eight inches to a foot high by the time of the first cutting. A close examination of the stems shows them to be shriveled and blackened for two to three inches up from the ground. The infection seems to attack the plants next to the soil and to work up the stem. As the disease progresses, it produces a watery, semi-trans-



MILL OF THE ALBION ALFALFA MEAL CO., ALBION, NEB

tration, is 30x40 feet in size, attached to which are a hay barn, 24x100 feet, an engine room, 20x30 feet, and an annex, 16x20 feet. The grinding capacity is 20 tons per 10-hour day.

The company is under the management of W. B. Swygard, who is also secretary, the other officers being T. B. Bowman, president; Max Wolf, vice-president; D. J. Gates, treasurer. The company's literature is practical, giving general information as well as directions for feeding that will be appreciated by those who may be experimenting with the meal.

THE EASTERN CANADA HAY TRADE.

Mr. W. H. Dwyer, of the W. H. Dwyer Co., Ltd., of Ottawa, Ont., in a recent open letter calls attention to the depreciation in the Eastern Canada hay trade within the last few years, and makes some pertinent suggestions with a view to bettering the present conditions. His letter says, in part:

"I would like to call the attention of the Department of Agriculture, hay dealers and farmers of Eastern Ontario and Quebec, to the fact (which has been obvious to all hay dealers for some years) namely the deterioration in quality of Canadian hay, and if possible arrive at some solution of the trouble. Five to ten years ago we had no trouble getting thousands of tons of No. 1 timothy, now almost unknown in this district and even the No. 2 is poorly saved and pressed too heavy, clover cut too late and allowed to lie on the field too long until it becomes black and too dry, the consequence is our hay must take a lower position each year in foreign markets and our farmer's accept a lower price."

"Some years ago on account of the small cars supplied by Railway Companies it was necessary to press hay tight in order to get ten tons into a car, this is no longer necessary. Considerable Western Canada hay has been shipped East this season, and we find the average weight of bales 17x22x44 is 125 pounds, while Eastern hay same size of bale average 155 to 160 pounds, and in some cases up to 175, the latter of course does not open up as well being more broken and dusty, and is very much disliked by consumers in all countries. While the majority of our farmers manage to save their timothy hay fairly well (although on the average cutting too late) they simply destroy their clover, so much so is this the case that at present out of 75

parent, brownish appearance of the tissue which turns black with age. * * *

"So far as our present observations go, the disease appears to run its course with the first cutting, and those plants which have sufficient vitality throw out a good growth for the second and third cutting. Strange as it may seem, there is little or no trace of the blight during the remainder of the season, but in the following spring an aggravated outbreak may be expected. The disease apparently does not kill many plants the first year, but they begin to die after the blight has been prevalent more than one season, and after two or three years so many of them may be missing that the stand is practically worthless."

"At present, we are at a loss to explain satisfactorily why the first cutting, only, should be attacked, unless it is that by pasturing cattle on the alfalfa field during the winter, the constant trampling splits open the crowns and bruises the young, tender shoots so that during the first irrigation, soil containing the disease germs is washed into this injured tissue. The weather conditions at this time of the year are, as a rule, unfavorable to a rapid, vigorous growth of the plant, and it is probably in a hyper-susceptible condition. This explanation is borne out, first, by the fact that the disease has not been observed to occur until after the first irrigation; and second, by the fact that since no cattle are allowed in the field after the first cutting, the young crown buds of the second crop have received no mechanical injuries through which they might become inoculated. Again, the plants themselves are in a more vigorous, resistant condition at this season of the year."

Prof. Paddock is now experimenting with a number of resistant varieties of alfalfa, and reports very satisfactory results, which will be given in full later.

The grain dealers' "gentlemen's agreement" at Billingham, Wash., has gone to pieces and selling prices have gone with the agreement.

Sales of 2,000 bushels No. 2 red wheat at Baltimore at \$1.46 makes the highest recorded price at that market for ten years. The purchase was said to have been made by a dealer who would probably retail the grain as poultry food. His customers are among this class, and the actual wheat has been hard to secure for this purpose.

IN THE COURTS

E. M. Wayne of Delavan, Ill., president of the Illinois Grain Dealers' Association, and Frank Jacobs, of San Jose, have been appointed trustees of the creditors to make settlement in the failure of the firm of J. and F. J. Rapp, of San Jose, Ill.

The bankruptcy case of Arthur J. Reiger, of Wallace, S. D., has come up for hearing before Referee in Bankruptcy H. A. Muller at Sioux Falls, S. D. The failure involved a large number of grain men in the northern part of the state, where Mr. Reiger conducted a line of elevators.

The State Association of Farmers' Elevators has brought suit at Canton, S. D., against the Chicago, Milwaukee & St. Paul Railway Co. for the purpose of testing the reciprocal demurrage law passed by the South Dakota legislature in 1907. It is understood that the farmers' companies have a considerable bill for collection, should the courts approve the law.

The suit of the Farmers' Elevator Co., of Emerado, N. D., against the bank of that place, has been decided by Judge Templeton in favor of the complainant company. The defaulting treasurer of the company was also cashier of the bank where the embezzled funds were deposited, and the suit was installed against the bank to recover the misappropriated funds.

C. H. Barrett of Owosso, Mich., has started suit in the circuit court at Corunna, Mich., against H. N. Ainsworth for \$10,000 alleged damages. The suit is the result of the purchase by Mr. Barrett of the Ainsworth Elevator, the owner agreeing not to engage in the same business within 20 miles of Owosso for 20 years. Ainsworth started his son in the business and Barrett secured an injunction, the supreme court holding the agreement binding. Now Barrett seeks damages.

Suit against the Interstate Commerce Commission was started on April 29, in the United States Circuit Court in Chicago, by the Chicago, Milwaukee & St. Paul Railway for the purpose of having annulled the commission's order regulating rates on the transportation of flax seed between Britton, S. D., and Red Wing, Minn. The railway is fighting the commission's order of January 5, 1909, in which a rate of 15 cents per 100 pounds on flax seed was established to take the place of a rate of 26.5 cents, maintained by the railroad. The Commission's order was made following the hearing of a case against the railroad, in which the Red Wing Linseed Co. was complainant, alleging the 26.5 cent rate to be excessive.

W. W. Cameron of Chester, Neb., recently brought suit against the Byron Farmers' Elevator Co., charging the corporation with being a monopoly and doing business outside the law. It was alleged that the corporation was so organized that if a stockholder in the farmer company did not sell his grain to the elevator, but handled it through other channels, he was fined one cent for each bushel so disposed of. It was alleged that the farmer company had drawn trade away from other places that rightfully belonged to the other towns, and did so through their monopolistic methods. After taking the matter under advisement for a period of several hours Judge Skinner from the bench announced his decision in favor of the defendants and they were accordingly discharged.

The suit in bankruptcy recently instituted in the United States District Court in Kansas City, Kas., against the Christie Grain Co., by foreign creditors, was practically dismissed when the attorneys for the complaining creditors failed to appear before Special Master Newton Wilder to prove their claims. When Mr. Wilder was appointed the court instructed him to carefully examine all claims presented and ascertain whether or not they were based upon "bucketshop" deals. Judge John C. Pollock intimated at the time he named the special master that no claim against the company would be considered as legitimate if any gambling feature were involved. It is likely that the bankruptcy suit will be dismissed. In such a case Receiver W. M. Whitelaw will proceed with the adjudication of the affairs of the defunct concern.

The case of the Buffalo Grain Co. against the Western Elevating Association was recently argued before the Court of Appeals at Albany, N. Y., as an appeal from the judgment of the Appellate Court affirming a judgment of \$57,020.70 in favor of the plaintiff. The action was brought to recover the value of grain alleged to have been destroyed through the negligence of the defendant. Defendants were owners of the Ontario Elevator at Buffalo, N. Y., and received about 200,000 bushels of barley belonging to the plaintiff and Nye, Jenks & Co., who assigned their claim to plaintiff. The plaintiffs allege that the elevator was defectively constructed, out of repair and not a safe place to store the grain and that the defendants permitted it to become overloaded so that it collapsed on October 30, 1904, and part of the grain was precipitated into the water and lost. The defendants claimed that the loss was

occasioned by an explosion and fire not due to their negligence, and also that plaintiffs knew of its condition and state of repair and that they insisted upon its being overloaded.

TWO CASES FROM TEXAS.

The Pitts Mill & Elevator Co. vs. The Browne Grain Co.—In the above styled cause pending adjustment by the arbitration committee of the Texas Grain Dealers' Association, we, the said committee, find as follows:

It appears from the papers presented that on April 17, 1908, there was an exchange of wires between the plaintiffs and defendants which resulted in the purchase by plaintiffs of one minimum car of "2 mixed corn," in weight sacks delivered Harleton, Texas. Plaintiff's wire acceptance specified "immediate shipment" and their confirmation contained the same specification. The confirmation from the Browne Grain Company contained the following provision regarding time or shipment:

"However, we cannot guarantee to get you immediate shipment. We are having heavy rains continuously, and it may be ten days before we can get it out and possibly longer. However, of course, it would be to our interest to ship it immediately if it can possibly be done; so we take this order, so if we are delayed any reasonable length of time we will not be held responsible for same."

Considerable correspondence followed, finally the defendant contending for "indefinite delay."

The committee believe a contract was entered into for a car of corn and that it should have been shipped within ten days, or a reasonable time thereafter. We find that on May 5, 1908, the plaintiffs wired defendants asking them if they could ship the car in controversy within a week and advising them if they did not do so, it would be bought for their account. No reply was received to this telegram, and on May 6 the plaintiffs purchased a minimum car of corn containing 715 bushels at a loss of 6.6c per bushel, equals \$47.19.

We find that from the peculiar railroad position of Harleton, it was necessary to pay a premium for this car of corn and that the price paid for it was its reasonable market value, considering the difficulty of obtaining grain that would take a reasonable rate to this point.

The committee, therefore, find that from the defendants is due to the plaintiffs their loss on this car of corn, amounting to \$47.19; and the defendants, the Browne Grain Co., are ordered to pay immediately to the plaintiffs, the Pitts Mill & Elevator Co., \$47.19 at Marshall, Texas. The secretary is hereby ordered to return the plaintiff their deposit fee.

C. L. ROSS.
E. W. ROLLOW,
E. R. KOLP.

Attest: Nov. 13th, 1908: Committee.
H. B. DORSEY, Sec'y.

The Stamford Mill & Elevator Co. vs. Empire Grain Co.—In the above styled case pending adjustment by the arbitration committee of the Texas Grain Dealers' Association, we, the said committee, find as follows:

This is a claim growing out of the sale and purchase of three cars of wheat on June 18th, 1908, under contract as follows:

Stamford, Texas, 6/18/08.

"Stamford Mill & Elevator Co., Gents:—This confirms the purchase from you of three cars of mixed wheat at 95c, first part of next week shipment. Basis No. 2, destination, weights and grades to govern.

"Yours truly, "W. C. COLLINS,
"for Empire Grain Co."

The evidence shows that one car of the wheat was shipped within contract time, which was June 24, and the said car was accepted and applied on the contract. The other two cars were not shipped until after the contract time had expired, both cars being invoiced to the Empire Grain Co. by the Stamford Mill & Elevator Co. on June 29, five days after expiration of the contract time for shipment.

The first evidence the defendant had that shipments had not been made within contract time was on June 30th, when B/L with draft attached were presented to the defendant. The evidence shows that the defendant had this wheat sold to the Texas Star Flour Mills and the wheat than en route, and as soon as defendant was presented with B/L and saw that shipment was not made within contract time, it immediately communicated with its purchaser, advising that the wheat had not been shipped on contract time and endeavored to secure acceptance of the wheat by its purchaser, on the contract, but was unable to do so, and immediately wired the plaintiff as follows:

"Last two cars wheat not contract time. Star Mills decline. We must do likewise. Reclaim draft. Save protest."

To which plaintiff replied by wire: "Pay draft. You cannot refuse wheat."

The question having been settled that the defendant would not accept the wheat on the contract

on account of its not having been shipped within contract time, the plaintiff proceeded to sell the wheat to the Texas Star Flour Mills at 4c per bushel less than originally sold to the defendant, for which they make claim.

The plaintiff contends that under Rule 7 of our Trade Rules, not having received notice from the defendant after expiration of the time of shipment to the contrary, the contract remained in "force unless and until completed, extended, bought in or cancelled," and that it had a right to make shipment in the absence of such notice, hence is entitled to the loss sustained on the shipment of the two cars of wheat in question.

The plaintiff further contends that under this rule it was entitled to three days' grace after expiration of time of shipment, in which to make shipment. The committee is of the opinion that the contention of the plaintiff is erroneous, holding that when the plaintiff, who was the seller, first violated the contract by failing to make the shipment within the contract time, and further failing to notify the buyer, the defendant, of its inability to make shipment within the contract time, the buyer, the defendant, on not receiving notice that shipment would not be made, had a right to conclude that shipment had been made in the time limit, and it was its duty to wait a reasonable time the arrival of papers, and when the papers were presented, which was the first notice the defendant had that the shipment had not been made on time, the defendant then had a right to accept the shipment or to decline same at its will.

In other words, we hold that it is the first duty of the seller to give notice of its inability to make shipment within contract time, and then it is the duty of the buyer to determine or decide as to whether he will extend the time of shipment, buy in the grain for seller's account, or to cancel the contract, and until this notice is given by the seller, the buyer has a reasonable time in which to wait for papers on the shipment before it becomes his duty to determine which of the options will be accepted, as, not having received such notice, the buyer has no right to doubt but that the shipment has been made within the time limit.

If the contention of the plaintiff that it had three days in which to make the shipment after time limit should be correct, then there could be no certainty of contracts based on a specific time shipment; and the committee holds that the following clause, "shall notify the seller by wire that unless he (the buyer) be in receipt of notice by wire within twenty-four hours, advising that shipment will be completed within forty-eight hours, he (the buyer) will, at the expiration of said twenty-four hours, at once proceed either to buy in, extend the time of shipment, or to cancel said contract, and to render a statement to the seller for all loss incurred," in Rule 7, if for the protection of the seller at all, is solely for his protection when he has the grain on hand to make shipment, when the buyer might attempt to cancel the contract on an advancing market and charge the seller up with the difference in the market when it might suit the seller best to ship the grain, even if the market was higher.

The defendant, Empire Grain Co., files a counter-claim against the plaintiff for a balance due on former car, on account of shortage in weight for \$43.09, and for loss of 2c per bushel on 1,732 bushels of wheat, being the amount contained in the two cars in question, on account of failure of plaintiff to ship the wheat on contract time. The plaintiff admits the claim for shortage; and the committee, following the precedents of former committees, where by contract it is shown that defendant had a profit claimed on a contract with its purchaser, the committee awards the defendant the amount claimed for failure on the part of plaintiff to ship within contract time, and hereby awards the defendant, the Empire Grain Co., \$77.73, amount claimed, and the plaintiff is hereby ordered to promptly pay to the Empire Grain Co., at Fort Worth, Texas, \$77.73, and the Secretary is instructed to refund to the Empire Grain Co. its deposit fee in this case.

E. W. ROLLOW.
L. G. BELEW.
W. L. PITTS.

Attest: 11/13/08.
H. B. DORSEY, Sec'y.

The Washington State Board of Control will make a price on prison-made grain bags of 6c delivered at any station in the state.

"When I was running a rectifying plant at Vincennes," said E. T. Millett, in the course of his testimony at the "straight whisky" inquiry at Washington, on April 27, reported by the Cincinnati Enquirer, "we were in the habit of purchasing condemned grain. As far as I was able to determine we could make as good spirits from poor grain as from the best the market afforded. The only difference was in the yield, the better grain producing more spirits. One lot we purchased was so rotten that the health authorities compelled us to throw it away before we had used all of it. We could not turn it, it was so wet and rotten, and the only way we could get rid of it was by burying it."

COURT DECISIONS

[Prepared especially for the "American Elevator and Grain Trade" by J. L. Rosenberger, LL.B., of the Chicago Bar.]

Passing of Title and Question as to Scales.

One party sold to another 40 acres of standing hay at the agreed price of \$4.50 per ton, the hay to be weighed and paid for before taken from the farm. The purchaser took possession, cut and stacked the hay, and haled and hauled away six loads thereof. The Supreme Court of Nebraska holds (Allen vs. Rushforth, 118 Northwestern Reporter, 657) that title to the entire crop passed to the purchaser.

It is also said in the opinion in this case, that if the scales agreed upon by the parties were out of order, or so manipulated by the seller as to work to the injury of the purchaser, and the seller refused to have the hay weighed elsewhere, or to have the scale inspected and corrected so as to give the true weight, the law is clear that the purchaser might then refuse to proceed with his contract, and the seller could have no cause of action against him, except for the hay actually taken away.

If it be conceded that, because of the lien reserved on the hay for the purchase price thereof, a duty rested on the seller to sell such part of the hay as the purchaser refused to take and pay for and apply the proceeds in reduction of the damages, still the seller would be relieved of any supposed duty in that respect by the purchaser's refusal to allow such sale to be made.

Damages for Breach of Contract to Furnish Feed for Cattle.

Four hundred tons of hay was sold to a purchaser owning in the neighborhood of 2,000 head of cattle to which it was expected to feed the hay. The seller broke the contract, and the purchaser, being unable to procure a sufficient amount of hay elsewhere to properly sustain the cattle, brought an action to recover the portion of the purchase price which had been paid for the hay and damages estimated at \$5,000.

In affirming a judgment for the purchaser, though for what amount is not stated, the Supreme Court of Colorado says (Richner vs. Plateau Live Stock Co., 98 Pacific Reporter, 178) that it is true that under ordinary circumstances the measure of damages for failure to comply with the terms of a contract for the sale of personal property is the difference between the price which the purchaser agreed to pay, and the price which he is compelled to pay for like property in the open market; but, where like property cannot be obtained in the open market, and where the vendor knows that the purchaser has made the purchase for a specific purpose, a different rule prevails, and upon a breach, where the special purpose for which the goods were wanted by the vendee was known to the vendor, he is liable on the contract for any special damages resulting to the vendee, in the absence of fault upon the part of the vendee, from the failure to deliver the property, such special damages being the natural consequence of the nondelivery and presumably contemplated by the parties.

Although it may be exceedingly difficult to definitely determine the exact difference in value of an animal which had been poorly fed through the winter and one which had been well fed, testimony touching it was admissible. It is not a sufficient reason for disallowing damages claimed that a party can state the amount only approximately. It is enough if from approximate estimates of witnesses a specific conclusion can be reached. It is not necessary to show the exact amount of damages with absolute certainty.

The value of the hay to the purchaser was not the market value, but the value of the cattle which it could have preserved, either from death or decrease in value because of having insufficient food. Under certain circumstances a ton of hay which cost \$5 might be the means of preserving the life of a horse worth \$500. If the feeding value of the hay was limited to the price agreed upon for its purchase between the buyer and the seller, then that would constitute the measure of damages, but, under special circumstances known to the parties at the time of contracting, the damages may be enhanced beyond the real or market value of the property.

In the absence of any deceit or fraud practiced upon the seller by the purchaser at the time of the making of the contract, the measure of damages in a case like this is as above set forth. In this case the loss sustained was not the value of the hay, but the damages resulting from the want of it.

The Business Men's League of St. Louis is trying to restore traffic on the Mississippi and Missouri Rivers from Kansas City to New Orleans. Steps have been taken to call a conference of the cities interested to make plans for financing the enterprise. The plans call for the operation of a line of freight steamers and barges, which will be especially designed to carry large cargoes on the channel depths which the Mississippi above Cairo and

the Missouri up to Kansas City afford; and to establish a line between St. Louis and New Orleans for handling heavy freight with ample terminal facilities in both cities for the loading and unloading of cargoes. With the restoration of business confidence no great obstacle is expected in the way of securing \$1,000,000 or \$2,000,000 of capital to give the project a fair start.

TWO NATIONAL COMMITTEE OPINIONS.

The following opinions have been handed down by the arbitration committee of the Grain Dealers' National Association:

T. H. Bunch Co., Little Rock, Ark., Plaintiff, vs. N. A. Faulkner & Co., Arcadia, Fla., Defendant.—Claim for damages is made by plaintiff on account of refusal by defendant to accept two cars of corn shipped to fill a certain contract made on the 29th day of October, 1908. The telegrams passing between the litigants are as follows:

Defendant initiated the trade by wiring the plaintiff: "Telegraph best offer, bone-dry No. 2 corn, sacked hundreds, f. o. b. Tampa."

Plaintiff replied: "Offer hundred No. 2 corn 82½ C. A. F. Tampa, ship by all-rail Little Rock terms, immediately."

Defendant replied: "If guaranteed arrive cool, dry and sound, ship immediately Tampa two cars, three hundred bags each."

Plaintiff replied: "Confirm two cars No. 2 corn, four hundred bags each, 82½ C. A. F. Tampa, guaranteed arrive cool and sweet, within five days, forty thousand pounds our minimum. Is it satisfactory?"

Defendant replied: "Your wire satisfactory, but if possible smaller car carries better. Draw at sight B/L attached."

The contract was confirmed by letter by the plaintiff as follows: "800/100 No. 2 mixed corn 82½ C. A. F. Tampa shipment within 5 days. Official weights and grades, guaranteed to arrive sweet and cool."

The defendant confirmed the contract by letter reading as follows: "2 cars (600 to 800 bags) No. 2 corn, 82½. To arrive cool and sweet—confirming exchange wires date."

It is quite clear from the foregoing evidence that plaintiff offered the corn as No. 2 corn, guaranteed to arrive at Tampa, cool and sweet, and on Little Rock official inspection and weights, and that defendant accepted the offer.

Official documents issued by the Little Rock Board of Trade show that No. 2 corn was shipped on Oct. 31st to fill contract. On Nov. 12th, defendant wired plaintiff: "Corn damaged, refused, can't handle." Evidence shows that defendant would have nothing to do with the corn, and that he declined to negotiate or confer with plaintiff's representatives at Tampa. It is not shown that there was an official inspection of the cars at Tampa, and defendant produces no first-hand disinterested evidence as to character of the corn on arrival. It is claimed by defendant and his agents or employees that the corn was not sound enough to be classed as No. 2 corn, and it is admitted by the defendant that the corn was dry and in good condition.

Plaintiff's representatives at Tampa took charge of the corn and sold it at a price of 77 cts.; and competent evidence is submitted by the two buyers of the corn to show that they considered the corn strictly No. 2 corn throughout, and that they paid a price for it about in line with No. 2 corn offered at that time C. A. F. Tampa via rail and water.

It has already been shown that the contract was based on No. 2 corn at Little Rock, guaranteed to arrive sweet and cool. Consideration has been given to defendant's contention that the corn was not sound (because this might mean that it was not sweet, according to contract) but the best evidence shows that it was No. 2 corn at Little Rock, No. 2 corn at Tampa, and that it was cool and sweet.

Plaintiff is therefore entitled to recover from defendant the loss occasioned by his refusal to receive and pay for the corn, viz.:

5½ cts. per bushel.....	\$ 78.58
Demurrage	17.00
Brokerage for selling	7.14

A total of \$102.72

Judgment in favor of plaintiff is hereby rendered for this amount, cost of arbitration to be paid by defendant.

Tri-State Milling Co., Nashville, Tenn., Plaintiff, vs. Richmond Elevator Co., Lenox, Mich., Defendant.—The controversy arises over settlement on a part of a certain contract made February 12th, 1906, covering sale to plaintiff by defendant of 5,000 bushels sample white winter wheat at 88½c, delivered at Cincinnati, Ohio.

The evidence as to contract, shipping directions and terms is very imperfect; but, taking statements of both plaintiff and defendant, it is apparent that the wheat was sold at a price net, track, Cincinnati, with all charges paid up to Cincinnati.

It appears, from the evidence that of the shipments to apply on this contract, car No. 8,369 was of an inferior quality, and a discount of six (6) cents per bushel agreed upon.

Cars 17,297 and 7,514 were of inferior quality, but were unloaded into plaintiff's mill or elevator, and part of the contents of one or both cars was used by the plaintiff. There is no evidence to show the exact quantity used—plaintiff says in his statement in rebuttal "Most of the wheat used from car 7,514 was carefully weighed and found it to be 6,775 pounds." This is indefinite and not sufficient to establish the quantity used. Evidence submitted shows an agreement between the litigants to the effect that the contents of car 8,369 were to be accepted by plaintiff at six (6) cents per bushel discount, and that the contents of cars 17,297 and 7,514 were to be loaded into cars for amount of the defendant (who refunded to plaintiff the amount plaintiff had advanced on these cars, together with freight paid); the quantity of wheat retained by plaintiff to be determined by the difference between the loading weight at point of origin and the outturn of cars when unloaded at elevator, said quantity of wheat so ascertained to be paid for by plaintiff at same price the wheat in said reloaded cars sold for.

Evidence shows that there was loaded at point of origin by defendant,

into car 17,297.....	54,588 pounds,
into car 7,514.....	60,624 pounds,

a total of 115,212 pounds,

and that the wheat reloaded by plaintiff was put into cars 7,514 and 8,369, which were sold to the Liberty Mills, of Nashville, and unloaded into their elevator,

8,369 and 17,297.....	54,500 lbs.
7,514	51,580 lbs.
a total of	106,080 lbs.

thus fixing the quantity retained by plaintiff at 9,132 pounds, to be paid for at 80 cts. per bushel net, Cincinnati, this being the price that the Liberty Mills paid for the wheat in the reloaded cars, plus 10 cts. per 100 lbs., or 6 cts. per bushel, freight Cincinnati to Nashville, making price 86 Nashville.

It is shown by the evidence that the plaintiff retained the freight expense bill for car 7,514; and inasmuch as the defendant had refunded to plaintiff the full amount of freight assessed against this car, the original paid expense bill was the property of the defendant; and it is shown that the use of this expense bill by plaintiff prevented the defendant from getting the full refund in freight assessed from Cincinnati to Nashville, thereby causing a loss to the defendant of four (4) cents per 100 lbs.

The item of \$8 for demurrage on car 27,105 properly belonged to the plaintiff to pay. His bill against the defendant was sent with the "hope that you can secure the refund and forward to us promptly." It appears that the railroad company would not refund the amount, and no evidence is presented that fixes the responsibility on the defendant.

Evidence shows the following freight paid on two cars over which freight controversy arises:

Car 1,215, 41,900 lbs. at 12ct Lenox to Cincinnati	\$50.28
Freight allowed by defendant.....	40.00

Difference	\$10.28
------------------	---------

Car 43,602, 49,600 lbs. at 12ct Oxford to Cincinnati	\$59.52
Freight allowed by defendant.....	40.00

Difference	\$19.52
------------------	---------

The properly signed copies of expense bills show that freight was assessed from originating points as above, and it falls on the defendant to protect the plaintiff on all charges up to Cincinnati, whether in accordance with tariff rates or not.

Our conclusion is that a proper statement of the account between the litigants is as follows:

Credits for defendant:

152.12 bus. wheat from cars 17,297 and 7,514	\$130.89
4 cts. per 100 lbs. freight on car 7,514	23.88
Check sent Tri-State Mill. Co.....	181.07
	\$335.84

Credits for plaintiff:

Discount car 8,369, 671.40 bus. at 6 cts.	\$40.30
Freight on car 7,514, per Ex. bill..	125.37
Freight on car 17,297 (agreed)....	122.98
Transfer cars 7,514 and 17,297....	10.87
Over Charge freight No. 43,602....	19.52
Over Charge freight No. 1,215.....	10.28
	\$329.32

Balance due defendant.....	\$ 6.52
----------------------------	---------

We, therefore, find that there is due defendant, the sum of Six and 52/100 dollars. Judgment for this amount is rendered in favor of the defendant. Costs of arbitration to be paid by the plaintiff.

(Signed)

H. S. GRIMES, Chairman.
CHAS. C. MILES.

E. M. WASMUTH, Committee.

May 10, 1909.

BARLEY and MALT

Walter Jansen recently installed a mammoth electric barley roller and steamer in his plant at Lincoln, Cal.

The Buffalo Chamber of Commerce is making an attempt to have barley placed on the free list of the Payne tariff bill.

Alberta grain dealers are attempting to foster the growth of barley in that section of Canada. Low priced seed is being distributed by many of the dealers.

One hundred entries have been recorded in the Wisconsin barley-growing contest which will be held under the auspices of the Fox River Valley Fair, August 24, 25 and 26.

The Rice Malting Co. of Maine has taken over the property at North Forty-sixth avenue and Cortland street, Chicago, formerly owned by the Rice Malt and Grain Co. of Illinois.

Work has commenced on the new plant for the Consumers' Malt Co. in the southeastern part of Minneapolis, Minn. About \$100,000 will be expended. O. G. Blair is in charge of the work.

San Francisco has recently been having a barley boom, with a very sharp advance in price, due to small stocks and heavy consumptive demand. In the latter part of April feed barley sold up to \$1.59.

The attempt to increase the barley schedule of the Payne tariff bill from 15 to 25 cents a bushel was defeated in the House on April 7. Six different amendments were offered and every one defeated. The duty of 25 cents per bushel on barley malt was also upheld.

Dr. Albert Mann and C. P. Harlan of the U. S. Department of Agriculture have been assigned to the Minnesota State Experiment Station at St. Anthony Park, Minn., for the purpose of conducting an extensive barley investigation in conjunction with the Minnesota state authorities.

The Anheuser-Busch Brewing Association of St. Louis, Mo., will distribute \$500 in prizes in various sections of Minnesota this season in a competition which will be open to all farmers raising 1,000 bushels or more of malting barley. Details of the competition will be published later.

BARLEY AND MALT IMPORTS.

The following is a statement of the imports and exports of barley and malt for March, 1909, and nine months ending with that month, taken from statistics furnished by the Department of Commerce and Labor:

	1909.	1908.
Imports, barley, March, bushels.	1,915	1,147
same nine months, bushels....	2,314	197,464
Exports, barley, March, bushels.	181,999	139,888
same nine months, bushels....	6,263,687	4,003,734
Exports, malt, March, bushels...	16,738	10,160
same nine months, bushels....	127,318	184,254

BARLEY AS FEED FOR HORSES.

The rejection of barley burdened oats in the Southeast has renewed interest in barley as horse feed, and gives new value to the following excerpt from a comparatively recent Farmers' Bulletin of experiment station work:

"Except on the Pacific coast barley is not extensively used as a feed in the United States, doubtless owing to the fact that it is in such demand for brewing purposes that it is high in price. Whenever it is grown, however, it is frequently possible to secure at a low cost, grain which is off color, owing to rain or fog during harvest, and which, for this or some other reason, is unfit for brewing, but valuable as feed. The barley grown on the Pacific coast is extensively used in the feeding of horses. Its use for this purpose is old in other countries. The Arabs fed their horses unground barley, and it is used successfully by the Berbers of North Africa. In Europe its value is generally recognized.

"Barley may be fed whole to horses having good teeth and not required to do severe work. Since ground barley, like wheat, forms a pasty mass when mixed with saliva, it is regarded as more satisfactory to crush than to grind it, if for any reason it is considered undesirable to feed the grain whole. In composition, barley resembles oats and other cereal grains quite closely. The North Dakota Station has recently studied the value of barley as a feed for work horses and mules. For some months this grain was fed with timothy hay to three horses and two mules. The mules did not eat the barley with marked relish at any time, but for two months, during which time they were performing light work, they ate enough to keep them in condition. The work was then increased, but they would not eat a correspondingly greater quantity of barley, and soon began to refuse it altogether for a day or so at a time. The mules were then given oats on alternate months. This grain was eaten with relish, and

gains in weight were made. Although the trial lasted nine months the mules persistently refused barley.

"Of the horses mentioned above, two were work horses. They were fed alternately, barley and oats, with timothy hay for nine periods of twenty-eight days each. They ate the barley without regard to the amount of work required of them. On the oat ration there was an average daily gain of 0.38 pound per horse. On the barley ration there was an average daily gain per horse of 0.15 pound. In both cases the horses averaged 5.50 hours' work per day.

"This trial indicates that horses, when taxed to the limit by hard work, can not be supported upon barley quite so well as upon oats, and that it is worth slightly less per pound than oats with stock which is given a medium amount of work. It indicates, further, that mules take less kindly to barley than do horses, and that horses which are inclined to be 'dainty' eaters will not eat barley so readily as oats."

"Malted barley was compared with oats in a trial made with four work horses. The two grains were alternated in different periods. Oat hay was supplied as coarse fodder. The malted barley was prepared as follows: After soaking in water for twenty-four hours, the grain was spread on the floor in a layer 6 inches or less in depth, and allowed to remain until the sprouts were $\frac{1}{2}$ to $\frac{3}{4}$ inch long; it was then fed. On the oat ration there was a daily gain of 0.49 pound on the malted barley there was an average daily loss of 0.76 pound per horse. When fed malted barley, the horses ate 0.1 pound more grain than when fed oats. In this test the horses worked between five and six hours per day on an average.

"A mixture of malted barley and bran was also compared with oats, the two rations being alternated as above. The grains were mixed in the proportion of two parts of barley (before malting) to one part of bran. As in the above test, oat hay was fed with the grain. The horses worked some seven hours per day. When fed a barley and bran ration, they ate an amount equivalent to about 17.4 pounds of dry grain per day. There was an average daily loss of 0.8 pound per horse. When fed the oat ration, an average of 16.2 pounds was consumed per day, and there was an average daily gain per horse of 0.22 pound. In other words, the horses did not maintain their weight on the bran and malted barley, although they ate a larger quantity than when the oat ration was fed.

"These trials indicate that malted barley is not an economical feed for work horses, and that the addition of one part bran to two parts of malt, as measured by the dry barley, from which it was produced, is neither a cheap nor satisfactory feed for hard-worked horses."

[From "American Brewers' Review."]

MATURITY OF BARLEY.

BY WM. H. PRINZ.

The process of the maturing of barley has not up to date received the attention which its importance demands.

First, barley that is selected for seeding purposes, should not be cut until it is dead ripe, and should then be fully matured in the straw, else it will deteriorate fast, and we get what is called shoe-peg barley.

Second, barley, used for malting purposes, should also be fully ripe before cutting, and then matured in the straw, as the loss in malting will be considerably less, and a malt with a better aroma can be produced, more even in growth, and with a larger amount of extract, and in fact a better malt in every respect. Malt for brewers' use is chiefly produced from barley by germination, but it is not merely necessary that barley shall grow, it must also malt. There is a great difference between germinating barley and the making of malt, and in order to have a barley that will malt properly, it must be fully matured, and a barley that was fully ripe when cut.

All barley valuation systems ignore this most important point. Maturing of barley should have the highest consideration, and I would place it first above all other points.

There are two ways of maturing barley when it is cut when fully ripe. First, the natural system, second, the artificial system. The natural system is the best, when the barley matures in the straw and is not thrashed before it has gone through a sweat and after a light frost. Most of our barley, however, is thrashed from the stack, then put into a shallow bin and there sweated. This is not so good, as the barley lies in closer bulk and is liable to heat, if not turned often and aerated. Barley in the fore part of the season, no matter where and how stored, should be shoveled or elevated over frequently, and under no circumstances should it be allowed to heat.

Second, the artificial system is sweating the barley by kiln-drying. It depends on the season. If the weather is bad during harvest, barley will be much improved by this treatment, and beyond re-

ducing the moisture percentage to a uniform rate and retarding moldiness and deterioration, the improvement is very marked in connection with the vitality of the grain. In England, much barley is kiln-dried in wet seasons. In Finland, the grain is stored in the straw in barns and then heated air forced through it. This is a very fine way of maturing barley.

In an article written by me, "American Brewers' Review," May, 1906, entitled "Something on Barley Cultivation," I quote Moritz and Morris. They say, "It is evidently akin to the natural maturity of the barley in the stack, a process which is now unfortunately far too hurried, if not neglected altogether." This effect is an interesting one, and has but recently received an explanation. Brown and Morris have shown that the epithelium of the matured embryo is incapable of secreting any soluble ferment until the ripening of the grain has advanced to partial desiccation. In other words, the embryo is unable to exercise its secretory functions until the necessary amount of water has been expelled, and when this does not take place naturally, it is necessary to bring it about artificially by kiln-drying; but natural sweating is decidedly preferable when it takes place in the straw, for the grain here is more readily accessible to the air than after thrashing, when it lies in closer bulk.

Lying between the starch-containing portion of the endosperm and the embryo, there is a comparatively thick layer of empty and compressed cells belonging to the endosperm, and as long as these cells are not empty and compressed, the barley is not matured. This is the reason why barley, in the earlier part of the season, does not germinate well.

Schjerning says: "Barleys which have had the growth and ripening period of short durations are much more liable to suffer a loss of dry substance by over-ripening than such barleys as have had a long development period. During a short period of development, the ripening process has got the upper hand of the development process as early as the stage of green ripening, whereas in a long period, the ripening process does not prevail over the developing process till a little before the yellow ripeness.

"During a normal period of development, on the contrary, there is an absolute equilibrium between the development and the ripening processes, from the stage of green ripeness to that of yellow ripeness, or more exactly, to a little before yellow ripeness. A respiration loss is not likely to occur during the storage of barley, providing the latter takes place under suitable conditions (not in damp air, and with no access of light, and providing also the barley sample has reached a suitable degree of maturity before being reaped.) Thus it may be said that full maturity has been reached when the conversion of the soluble into insoluble carbohydrates, and the soluble into insoluble proteids, has ceased or reached its maximum."

I would have liked to make this article more complete, but will do so in the future. Two things I wish, however, to have understood, and in regard to them wish to be on record: that I am for fully ripe, fully matured barley, and a barley with the highest amount of albumen. The more albumen, the more aroma. If we have this, and exercise proper care in malting, and adopt the proper methods, such a barley would produce fine, aromatic malt and a beer produced from it would have a pronounced character and flavor.

BOYCOTT IN ARGENTINA.

The Review of the River Plate of Buenos Ayres in a recent issue said:

"There is a singular case of boycott on in grain circles here. The Centro de Comisionistas y Corredores de Cereales resolved to cease selling cereals to an export firm in Rosario, because the said firm was in direct treaty with farmers outside, i. e., it was buying straight from the producers instead of in the orthodox way through a broker, who in turn acts for the middleman, 'acopiador.' As practically every cereal broker here belongs to the Centro, the boycott in this case has meant that the exporter in question has not bought a grain since the measure was passed a fortnight ago. The buyer has simply been isolated, and so serious a turn have things taken, it is said, that at a direct offer of even 10c above market price holders have refused to sell to him. The firm has appealed to sellers outside, explaining that if it has bought direct from producers and over the heads of Rosario brokers, it is because the latter are too exacting in their demands, more so than even the owners of the stuff themselves. The boycotted exporter proceeds to say that he has never tried to eliminate either broker or 'acopiador' from the trade, as he is quite aware they constitute the indispensable link between production and export. There are times, however, when business is made impossible by the pretensions of commission agents, he says, and it is then that he has gone straight to the farmer."

Correspondence solicited on grain trade matters.

TRANSPORTATION

The Straits were opened on April 14 by the steamer T. S. Christie.

The Open River Transportation Company has cut rates on grain on Columbia river, precipitating a struggle for the business by the O. R. & N. Co.

On May 1 a reduction of the export rate on wheat was made eastward from Buffalo, the new rate being 4c. It will remain in effect for 60 days only.

Traffic officials of the Grand Trunk road are said to be investigating a new route for grain from Alberta via the Isthmus of Tehuantepec to Great Britain. Alberta farmers have already started grain for Great Britain by that route from Victoria, Vancouver.

Wm. Whyte of the C. P. Ry., does not favor the erection of grain elevators on the Pacific Coast for handling export grain, which he thinks is better shipped in sacks. What is more required is a large warehouse and more dockage space to properly take care of all shipments tendered from the West.

The Railroad Commission of Texas has under Circular No. 3059, issued April 7, authorized the M. K. & T. Railway Company of Texas to absorb switching charges accruing at Houston on all shipments of grain and cotton seed products handled by it into Houston and mixed-in-transit or given transit at that point.

All the Western grain carrying railroads entering Buffalo have included in their tariffs issued on the first of the month, a charge of \$2 a car for reconsigning corn from the West. This charge, first established in March, 1907, was taken off on March 1st, this year. The tariffs state that the charge went into effect on May 1.

The final report of the board of engineers appointed by the Dominion government to ascertain the feasibility of construction and probable cost of a ship canal from Montreal to the Georgian Bay by the Ottawa River valley, Lake Nipissing and the French River, states that a 22-ft. waterway, capable of carrying the lake freight vessels, 600 ft. in length, 60 ft. wide, and having a draught of 20 ft., can be established for about \$100,000,000 within a period of 10 years, and that the annual maintenance of the same would be, approximately, \$900,000.

The lake marine engineers are out on a strike for "recognition" of the union, having refused to sign contracts containing the "open shop" clause. The engineers are supported by the officers of the Firemen's, Oilers and Water-tenders' Association and the Marine Cooks and Stewards' Union. Leaders in both organizations refuse to permit their men to ship on board any Lake Carriers' Association boat with a non-union engineer. As a result, there has been but little lake traffic so far, although some non-union crews are at work.

The grain section of the Dominion Marine Association, at a meeting held at Toronto, on April 22, decided to abandon the new clause in the bill of lading limiting the shortage on grain shipments to one-half bushel on 1,000 bushels. Several Canadian ships were accepting charters irrespective of the clause and as a result the Canadian grain trade was being diverted to Buffalo, the situation becoming so serious that the Dominion government wired the association to revert to the old order of things, and vessels will now accept shipments on the best terms they can make.

The State Association of Farmers' Elevators of South Dakota has begun an action in Lincoln County against C. M. & St. P. R. R. Co., to test the validity of the reciprocal demurrage law of 1907. The law provides that shippers may have forty-eight hours to load and twenty-four hours to unload cars and for all time over must pay \$1 per day. The railroad companies are required to furnish cars to be loaded within seventy-two hours, must start loaded cars toward destination within twenty-four hours, and must forward cars, loaded or unloaded, received by a connecting line, within twenty-four hours, or pay a penalty of \$1 per day for all excess time.

WATERWAYS PROJECTS AIDED BY THE GOVERNMENT.

In a preliminary report the Inland Waterways Commission tells of the movements that have been started from time to time for the development of inland navigation. It shows that the United States Government has assisted in the improvement and construction of navigable waterways since the foundation of the Government. Grants, both of land and money, have been made to the states; for a time subscriptions were made to the stock of private canal companies; and for many years large appropriations have been made directly for the improvement of rivers and harbors, says a correspondent of the Boston Transcript.

The first appropriation made by Congress for internal improvement was through an enabling act for the state of Ohio in 1802. It provided that one-twentieth part of the proceeds from a sale by

Congress of public lands lying within the state should be applied to the laying out and making public roads from the navigable waters flowing into the Ohio River. Similar provisions for a grant of 5 per cent of the net proceeds of the sales of public lands within each state were made in subsequent acts for the admission of the various public lands into the Union. Up to 1887 the amounts accruing to the various states from the proceeds of the cash sales of public lands aggregated \$7,123,549. The states have insisted that they are entitled to 5 per cent not only on the cash sales, but also on the value of public lands within their limits, set aside for permanent Indian reservations, and disposed of in satisfaction of bounty—land and agricultural college or other scrip, issued by the United States in payment of its obligations. A bill now before Congress to recognize this plan calls for nearly \$9,000,000.

The first effective act making grants of land to states for the specific purpose of securing construction of canals was passed in 1827. This act gave the grants of land to the states of Indiana and Illinois—two and one-half sections of land on each side of the canal were granted, the United States reserving alternative sections, thus beginning a policy which afterward became the rule in land grants for improvements. The grants in Indiana were all on account of the Wabash and Erie canal and in Illinois on account of the Illinois and Michigan canal.

THE GALLATIN REPORT.

As early as 1808 the country was, apparently, as much interested in a development of its inland waterways as it is today. Or, perhaps we should say the country is as much interested in the development now as it then was. At any rate, responding to public sentiment the United States Senate requested Albert Gallatin, then Secretary of the Treasury, to make an investigation of the subject and report to the Senate. This Mr. Gallatin did; and his report of April 6, 1808, contains many suggestions which are as applicable today as they were 101 years ago. He said among other things:

"Good roads and canals will shorten distances, facilitate commercial and personal intercourse, and unite by still more intimate community of interests, the most remote parts of the United States."

He suggested the following scheme for the canalizing of the country: First, great canals, from north to south along the Atlantic seacoast; second, communications between the Western and Atlantic states by means of canals; third, communications between the Atlantic waters and those of the Great Lakes and the St. Lawrence; fourth, interior canals.

Mr. Gallatin sent to the Senate along with his report a letter written by Robert Fulton, the inventor of the steamboat, pleading for the starting of a movement which would result in canalizing the whole country, as well as in the development of the navigable streams.

THE WINDOM REPORT.

As a result of the agitation in 1808, some progress was made in the construction of canals, but the outcome was not the adoption of a systematic plan of interior waterways improvement. Things drifted for nearly three-quarters of a century, or until 1872, when Congress created what was known as the Windom Select Committee, not dissimilar from the joint committee created by Congress at its last session to devise a general scheme for the improvement of inland waterways. One of the conclusions of this committee, after two years' work, was that "combinations and consolidations of transportation lines with parallel or competing lines are evils of such magnitude as to demand prompt and vigorous measures for their presentation."

This Windom committee outlined a general scheme for river developments. It suggested: first, the improvement of the Mississippi River; second, a continuous water line of adequate capacity from the Mississippi to the city of New York by way of the Northern lakes; third, a route adequate to the wants of commerce through the Central states, from the Mississippi River, by way of the Ohio and Kanawha rivers, to a point in West Virginia, and thence by canal and slack water by freight-railway, to tide water in Virginia; fourth, a route from the Mississippi River, by way of the Ohio and Tennessee to a point in Alabama or Tennessee, and thence by canal and slack water, or by a freight railway to the ocean.

The committee discussed these four existing and proposed channels of commerce as the "Mississippi Route," "Northern Route," "Central Route," and "Southern Route." It was the committee's idea that these four central routes should form the basis for a great national system of water transportation. It estimated that the cost of entire improvement would be about \$155,000,000. Its plan was to have the Government expend about \$25,000,000 a year on the system. It recommended that these central water routes should constitute free highways of commerce, subject only to such tolls as would be necessary for maintenance and repairs. The committee expressed the opinion that if these waterways were constructed the land in every state affected would be enhanced in value at least \$20 an

acre, which would add a total land valuation of more than a billion dollars.

The report of the committee as to the power of Congress to enter on such a scheme of public improvement was not unanimous. William Windom, John Sherman, J. Rodman West, Simon B. Conover and John H. Mitchell maintained that Congress had full power to carry out such a scheme. Roscoe Conklin dissented from the recommendations relative to the power of Congress, and T. M. Norwood, Henry G. Davis and John W. Johnston, while willing to admit that Congress might make the improvements, were unwilling to admit that it had authority to "regulate commerce among the several states" to the extent asserted in the report.

THE THIRD WATERWAY MOVEMENT.

The programme outlined by the Windom committee met with very general favor throughout the country, but Congress never took any steps to carry out the recommendations. Now, for a third time, the subject is a live one. An Inland Waterways Commission created by President Roosevelt has been supplanted by a Joint Congressional Commission, which is to go over the same ground ploughed by Albert Gallatin in 1808 and by the Windom committee in 1872. If the present situation appears to be more favorable to a successful outcome of the movement, it is because the problem of transportation has become acute with the years.

The Roosevelt Commission, unlike its predecessor, has suggested no specific plan of waterway improvement, but has made certain recommendations which are interesting as exhibiting a broader treatment of the waterways question than had been evinced in preceding reports. They recommend that hereafter plans for the improvement of navigable inland waterways, for any use of these waterways in connection with interstate commerce, shall take account of the purification of the waters, the development of power, the control of floods, the reclamation of lands by irrigation and drainage, and all other uses of the water and benefits to be derived from their control. They urge the co-operation of the Federal agency with that of states, municipalities, communities, corporations and individuals, with a view to an equitable distribution of costs and benefits. The Congressional Commission, whose appointment is recommended by the Roosevelt Commission, is headed by Senator Jacob H. Gallinger of New Hampshire. Its leading spirit naturally will be Senator Theodore E. Burton of Ohio, who made a national reputation as chairman of the committee on rivers and harbors of the House.

According to the Inland Waterways Commission, the total mileage of navigable rivers in the United States is 26,226. This is a little more than one-tenth of the total railroad mileage of the country in 1907. Some 142 streams, with a total mileage of 5,311, are tributary to the Atlantic Ocean. Fifty-two streams, with an almost equal mileage (5,261) are tributary to the Gulf of Mexico, exclusive of the Mississippi and its tributaries. The Mississippi system covers 13,869 miles, and represents fifty-four streams. Only one river flows into Canada, a distance of only 180 miles. Only thirty-eight navigable streams flow to the Pacific Ocean, with a mileage of 1,605.

ABANDONED CANALS.

For the entire country the census report of 1880 shows that of 4,468.61 miles of canals, costing approximately about \$214,000,000, 1,935 miles, representing a cost estimated at \$44,000,000, had up to that time been abandoned. Nine years later the abandoned mileage had increased to 2,215, about one-half the total mileage originally built. Among the causes for this wholesale abandonment of canals was the crisis of 1837, which put a stop to speculative canal building; the inability of some canals to compete with modern railroads; the mismanagement of other canals; together with the popular impression that such systems of public works had done more harm than good, and, finally, a belief that the chief means of internal communication was not to be water but rail. These are the conclusions of the Inland Waterways Commission. That the country should again turn to the waterways because of the traffic congestion on its 222,000 miles of railway is a remarkable commentary on the progress of the United States.

New Orleans in April exported 53,075.10 bushels of wheat and 479,334.26 bushels of corn. All but 8,600 bushels of wheat went to the Continent, while most of the corn went to British ports.

B. W. Wasson, the well known grain merchant of Cincinnati, who has been seriously ill at his home at Norwood, Ohio, is reported to be on the road to recovery. Mr. Wasson is in his eightieth year.

Members of the Omaha Commercial Club and Omaha Grain Exchange have organized the Omaha Traffic Bureau, of which W. H. McCord is president and E. J. McVann secretary. Mr. McVann resigning as secretary of the Grain Exchange to take charge of the Bureau, with whose duties and functions he is, as a trained railroad rate and traffic manager, especially familiar.

CROP REPORTS

Reports from southern California indicate a bumper wheat crop with no traces of rust.

From Virginia comes the report that an exceptionally large acreage will be planted to corn.

Reports from the central portion of Pennsylvania indicate that the wheat has suffered but little damage, and the outlook is promising.

Seeding operations for oats in Illinois are reported backward, due to the unfavorable weather. The early sowing appears well. Very little corn has been seeded as yet.

Michigan May wheat condition is 78, against 76 last month and 90 a year ago. The rye condition is 85, against 92 a year ago. The oats acreage is estimated at 97 per cent of a five-year average.

Wisconsin reports a very backward season. The May report estimates that only about half the acreage intended for oats has been sown. Rye will be about the same, with increases in barley and spring wheat.

The Kentucky May report puts the wheat condition at 81, a decline of three points during April. Last May the report showed 99. Corn acreage is placed at 100, but planting has been late, owing to unfavorable weather.

The indications seem to be that Indiana will produce about an average wheat crop this year, yield to acreage considered. The acreage has fallen off a trifle, but the condition is given out as promising. In oats, the crop promise is lower than last year, due largely to continued cold weather.

The Ohio May report places wheat condition at 66, against 62 a month ago and 92 last year. Prospects vary greatly throughout the state, from 18 per cent in Warren county to 101 per cent in Brown county. Oats acreage is placed at 104 per cent of last year, due principally to the failure of wheat.

An examination of the first of 285 special early oats reports from Illinois and Iowa shows 149 indicating full acreage, equal to last year. Of these 15 only report an increase of 5 to 20 per cent; 135 of these reports show a decreased acreage. Net decrease suggested in the two premier oats states is 5 to 8 per cent.

"It is estimated that there will be less than 25 per cent of an average wheat crop, and less than that of oats raised in Texas this season, with the most favorable conditions from this time until harvest. It is claimed that the most of the oats will be stored for seed, with a resultant effect upon the price of feedstuffs."

Continued rains have greatly hampered work in Iowa. Winter wheat condition is reported poor, but with a slightly increased acreage. Oats seeding has been much delayed by bad weather, and the acreage will be less than last year. Early sown oats exhibit the best condition. It is estimated that the corn acreage will be about 10 per cent greater than last year.

Reports to the Nebraska Commissioner of Labor indicate an increased acreage of winter wheat in that state amounting to approximately 10 per cent, but this will be largely equalized by the lower condition, the late sown wheat, in particular, being badly spotted. Spring wheat is given 22 per cent increased acreage, with condition backward. Oats reported in good condition. Corn planting has just started.

The last Government Report, issued May 7, places the winter wheat acreage remaining to be harvested at 27,871,000 acres, or 8.1 per cent less than the area harvested in 1908 and 7.2 per cent less than the area sown last fall. The average condition is placed at 83.5, against 82.2 last month, 89 a year ago and 86 a ten year average. Rye condition is placed at 88.1, against 87.2 last month and 90.3 a year ago.

Frank O. Fowler, secretary of the Canadian Northwest Grain Dealers' Association, comments upon Canadian crop conditions as follows: "The natural increase in acreage this year will be at least 800,000 acres. The acreage last year was about 6,700,000 acres in Manitoba. This year, as a result of the lands thrown open and homesteading, it will be about 7,500,000 acres. At an average of 17 or 18 bushels per acre; this should mean about 115,000,000 bushels." In Alberta and Saskatchewan, there has been considerable inclement weather lately, snow having fallen in the northern section. Warm weather is badly needed on heavy and low lying land.

The May bulletin of the Oklahoma State Board of Agriculture makes winter wheat condition 74.1 against 78.7 a month ago. The abandoned acreage is placed at 11.4 per cent of that sown last fall, leaving 1,000,235 acres to be harvested this season. The acreage sown to spring oats is placed at 100, or 456,106 acres, but with growing condition only 71.2 per cent of normal. Winter oats is 40.7 against 68.5 a month ago, dry weather and high winds having retarded the crop considerably. Green bugs are reported from several localities. The growing con-

dition of alfalfa is placed at 79.40. Corn planting is about completed in many sections, and spring work all well advanced.

Reports indicate that wheat seeding in the Dakotas and Minnesota is, on an average, about two weeks behind on account of the cold weather. In southern Minnesota the sowing is practically completed, but in central Minnesota and northern South Dakota only about 60 per cent of the crop has been sown, while in North Dakota only about 30 per cent was in by May 1. There will be a considerable increase in the acreage sown.

The Missouri May report places winter wheat at 74, against 70 in April, and 93 a year ago. Corn acreage planted to May 1 is placed at 22, against 15 a year ago, but only 59 has been plowed against 62 a year ago. The total corn acreage is estimated at 107 per cent of last year, much poor wheat having been plowed up and put to corn. Condition is placed at 72 against 85 a year ago. Oats acreage is 89, with condition 82 against 90 a year ago.

Reports from the grain belts in eastern Washington and Oregon, northern and central Idaho and western Montana, compiled by the Spokane Chamber of Commerce, show that the wheat yield in the Inland Empire will be near the 80,000,000 bushel mark this season, as against 65,000,000 bushels in 1907, the banner year in the history of the district. Conditions are also favorable for bumper crops of oats and other cereals, as frequent light rains this season have kept the ground moist and free from cracking. More than 2,100,000 acres of land in 13 counties in eastern Washington, which yielded 40,675,000 bushels of wheat in 1907, is under cultivation this season and local bankers and millers, returning from the Big Bend, the Palouse and the Walla Walla belts, say the outlook is better than ever, adding that a good rain in May or early in June will insure the best crop in the history of the district. They report that the ground is well pulverized, thus conserving the moisture, and that the growing wheat is in excellent condition. The acreage of winter wheat is as large as it has ever been, while there is an increase of 15 per cent in spring-sown grain. There is little or no No. 1 milling wheat in the country, the farmers having sold their grain during the recent rise.

H. B. Dorsey, Secretary of the Texas Grain Dealers' Association, in a bulletin dated April 24, says: "From the best information I can gather, there will be very little oats raised in Texas this season, as the freeze killed practically all the fall sown oats and the dry weather in the spring prevented sowing in many of the oat sections of the state and the continued dry weather has damaged what few were left. However, from Wichita Falls west, the conditions are not so bad and a very good crop of wheat and oats will be raised in that section and in the Panhandle country with good or favorable conditions from this time on to harvest. In west Texas, Stamford, San Angelo, Brownwood, Ballinger and other points, very little moisture has fallen since last fall and very little if any grain will be raised in those sections this season. In central Texas very little small grain was planted and the dry weather has practically destroyed the crop. It is not quite so bad in the northern part of the state, but on account of unfavorable conditions at planting time, little small grain has been sown, and the fall sown oats being killed and very few oats seeded in the spring, the oat crop will be very light in that section of the state. The wheat, what little there is in the north part of the state, is reported in very good condition.

Secretary E. J. Smiley of the Kansas Grain Dealers' Association, in his first report on conditions in that state gives the following information: "The following, made up from reports received from correspondents in 101 counties in the state, show 1.7 per cent of last year's wheat crop remaining in farmers' hands and country elevators on April 1, 13.2 per cent of last year's corn crop back on April 1, and a condition of the growing crop 83.2 per cent as compared with 8 per cent of wheat in first hands same date last year and an average condition of 89.1 per cent. Practically all of the counties in the eastern third of the state show wheat to be below the average. Correspondents report damage in the south-central part of the state from high winds blowing out and covering up the wheat. The crop is very backward and warm weather is needed. On account of dry weather last fall wheat was sown very late and made very little growth. With favorable conditions from this time it is probable that there will be some improvement in the condition, excepting the soft wheat in the southeastern portion of the state. This is badly winter-killed and quite a large per cent will be plowed up and planted in corn. The corn remaining will be held by the farmers, regardless of price, until another crop is assured. The report indicates that the corn remaining will be consumed within the state, as the supply in the eastern third of the state is entirely exhausted." Secretary F. D. Coburn's report places the decrease in acreage at 400,000 acres, or 6 per cent, with condition at 88.05, against a condition of 91.4 a year ago. Corn planting is well under way. Oats is coming along in good shape.

FIRES-CASUALTIES

Fire destroyed the Big Four Elevator No. 2 at Benton Harbor, Mich., last month. The loss is estimated at \$10,000.

The Illinois Central Elevator "B" at Chicago burned on April 29. Elsewhere in this issue will be found an illustrated account of the fire.

F. M. Lowe, manager of the grain elevator at Etna, Ill., recently suffered severe injuries by the caving in of a ditch in which he was working.

The elevator at Willey, Ill., owned by Twist Bros. of Rochester, Ill., was entirely destroyed by fire on May 11. Particulars have not been given out.

The Morehouse elevator at Glidden, Iowa, was destroyed by fire on May 6, together with 40,000 bushels of oats and corn. The loss is \$40,000.

The elevator of Cox & Malsberry at Darlington, Ind., was wrecked by a windstorm on April 29. The elevator was only recently completed at a cost of \$16,000.

While oiling the machinery in the elevator at Santa Fé, Ohio, recently, Henry Line was caught in a gearing and so badly mangled that he died within a few hours.

Fire on May 5 destroyed the grain elevator and several warehouses of the Freeman-Bain Co., at Aberdeen, S. D. The total loss is \$60,000, with \$19,000 insurance.

The warehouses of Kerr, Gifford & Co. and the Wasco Warehouse Co. at Bourbon, Ore., were destroyed on May 5 by a fire which was due to sparks from an engine.

The elevator of Straus, Ackerman & Co. at Avilla, Ind., was struck by lightning on April 29. Luckily the building was not set on fire, though the roof was badly damaged.

Fire believed to have been of incendiary origin destroyed the elevator of E. C. Allen at Portland, Mich., last month. The loss is placed at \$20,000, fully covered by insurance.

A fly-wheel on the engine in the plant of the Cerro Gordo Grain and Coal Co. at Cerro Gordo, Ill., burst on April 26, badly damaging the building. Luckily no one was injured. The damage will amount to nearly \$1,000.

Fire entirely destroyed the elevator of the Western Elevator Co. at Manson, Iowa, on May 5. Locomotive sparks caused the fire. Over 40,000 bushels of oats were destroyed. The total loss is estimated at about \$25,000.

Sneak thieves broke into the Shellabarger Elevator at Ospur, Ill., recently and carried off all the brass fixtures and parts which they could obtain from the machinery. The elevator was put out of commission for several days.

The Forsyth Elevator at Hadley, Minn., collapsed on April 20, spreading about 11,000 bushels of grain out on the ground. The elevator, which was built over twelve years ago, was utterly wrecked. The loss is placed in the neighborhood of \$3,000.

The plant of the South Van Alstyne Elevator Co. at South Van Alstyne, Texas, was burned on May 4. The plant was a co-operative one, owned by citizens of McKinney, Texas. Over 20,000 bushels of corn were lost. The loss is about \$30,000, covered by insurance.

The two elevators of C. A. Dunton at Burton, Kan., were destroyed by fire on April 22. The origin of the fire is unknown. Over 3,500 bushels of corn and a considerable quantity of feed. The loss is \$10,000, partly covered by insurance. Mr. Dunton will not rebuild.

The second fire within a month attacked the elevator at the Wilkinson-Gaddis Co. at Newark, N. J., on April 27. The blaze is believed to have been caused by an electric switchboard on the second floor. Two employees narrowly escaped with their lives. The loss is placed at \$150,000.

The Elevator and Warehouse No. 1 of the Pacific Coast Elevator Co. of Portland, located at Valley Grove, Ore., was destroyed by fire on April 19, supposedly caused by a tramp. There was no grain in the house. The loss was \$10,000, with \$8,000 insurance. Another warehouse was also burned.

Elevator "A" of the Husted Milling Co. at Buffalo, N. Y., was gutted by fire on April 26. The fire started from an explosion in one of the mills and several times was believed to have been put out, but finally broke out in the elevator, and burned fiercely for several hours. The loss is placed at \$200,000, fully covered by insurance. The elevator will be razed and rebuilt.

The elevator of Morris & Stone at Allenville, Ill., was burned to the ground on May 2, and the entire contents, amounting in all to about 1,800 bushels of grain, was destroyed. The fire was caused by a spark from a passing train. Morris & Stone, whose headquarters are at Mattoon, Ill., state that they will rebuild at once. The loss is placed at \$5,000, well covered by insurance.

The CO-OPERATIVES

Farmers' Cereal Co., Sloan, Ia., declares a 10 per cent dividend on 1908 business.

The Farmers' Elevator at Kidder, S. D., paid 20 per cent (\$1,400) on last year's business.

The Ohio Elevator Co., Ohio, Ill., made a profit of \$1,437 in 1908, which is used to pay debts.

A farmers' elevator company at Onawa, Ia., claims a profit of \$1,200 in less than two months after it started in February last.

The Strawn Elevator Co., or the relicts thereof, so to say, although the company is out of business, continue the old directors in office "to see what could be done toward recovering some of the lost funds that were squandered without authority."

The Minnesota Farmers' Exchange, organized a few years ago at St. Cloud to take charge of the handling of the farmers' products in Minneapolis, St. Paul and Duluth, is in the hands of a receiver. The liabilities amount to between \$4,000 and \$5,000.

The Farmers' Union will hold a special meeting at Springfield, Mo., "to take steps to protect themselves and place prices upon a high and stable basis, free of the disastrous influence of manipulation." "The plan," said President Chas. S. Barrett, "is to give the grower and not the manipulator the benefit of high prices."

Showing the manner in which a Minnesota co-operative went to pieces on the rocks a shareholder explained the current method of the manager: "When barley for instance was 65c, the farmer would start hauling his barley—neither selling it nor storing it, but taking weigh slips. He would have a conversation, purporting to be a verbal agreement, to the effect that he was to get 65 cents. When he finished hauling, if barley was 50 cents he simply stood by the verbal agreement and settled for 65 cents. But if, at time of settlement, barley was 85 cents, he refused to remember any agreement and simply sold his barley to the company then at 85 cents, even when the company had sold same at 65 cents, at time of agreement, as protection. As nothing was in writing, except the illegal weigh slips, the reader can easily see how this system worked. This is what ground the company down to its present wrecked condition, regardless of whether prices were rising or falling."

GOVERNMENT OWNED ELEVATORS.

The demand for government-owned grain elevators at interior points in Canada is still vigorously maintained by the Interprovincial Council of Farmers' Associations, which has issued and is widely distributing two pamphlets reviewing the agitation to date and restating the arguments in support of the project. In the pamphlet, "A Provincial Elevator System," in which the plan is worked out with estimates of cost, etc., it is made to appear that the farmers are not asking that the government system be made a monopoly. The three western governments in their joint reply to the farmers' associations declared that government-owned systems of elevators must needs have a monopoly; and that they had not the power, under the constitution, to establish such a monopoly. What the farmers want, as set forth in this pamphlet, is a chain of government elevators operated, if necessary, in competition with privately owned elevators. "All the benefits," it says, "inherent in a system of farmers' elevators covering every shipping point will be found in a government system with a number of additional ones." The pamphlet further says:

"This year 33 per cent of the grain has been shipped over the loading platform, not because it is cheaper or more convenient to employ this method, but for the reason that it afforded an escape from the exactions of elevator owners. It is worthy of note that at points where there are well-managed farmers' elevators, they are getting much more than the average of the line elevators at the same points, while the loading platforms at these points are very little used. It is not a desire to evade elevator charges which drives men to the loading platforms, since saving of labor of hand loading, saving of freight charges on screenings by cleaning before shipment, and the value of screenings for feeding purposes would in most cases amount to much more than the elevator charges, escaped in using the platform.

"Government elevators would be more popular than farmers' elevators. These may sometimes be run to make as much profit as possible for their shareholders out of the farmers who have no financial interest in them. But the chief advantage that a government elevator will have in attracting grain away from private elevators, apart from the sense of security from improper practices, will be the fact that certificates of weight and grade can be issued on which the farmer can finance until price conditions can warrant sale.

"Since the revolt against the line elevators has become so pronounced, farmers' elevators at many points have paid handsome dividends while the line elevators at the same points have taken in so little

grain that they must have been run at a loss, unless their speculations were enormous.

"The widespread and still growing appreciation of the necessity for breaking the monopoly which private ownership of storage has built up, is the best assurance that a government system would be patronized, even though the bribe of cutting rates below cost were offered to the public for the purpose of attracting the grain to the privately owned elevators."

It is declared that the agitation will be carried on by public meetings, by the distribution of literature and by using the press; and that by these and other agencies the representatives in the legislature will be impressed with the fact "that there is a widespread and vigorous demand for government elevators on the part of their constituents." Failing action political action is foreshadowed in these terms.

"If under these circumstances our legislators fail to act the farmers in each province must lose no time in so organizing themselves as members of their respective parties that at the next general election no one, from the premier to the humblest occupant of the opposition benches who has failed to respond to the wishes of his farmer constituents will be able to secure a nomination, let alone be elected.

"Thus can we achieve our ends. Succeeding in this, the responsiveness of future legislatures to popular demands will be beautiful to behold."

SPECULATION AND THE FARMER.

Speculation is the acceptance of a risk. "Nothing ventured, nothing won," is as old as it is true. One of the sad facts in the lives of many men has been a lack in initiative for without it we must be forever workers for a mere competence for the enrichment of others. The Wall Street Journal, in a recent issue, quotes the verse from Ecclesiastes where it says: "In the morning sow thy seed, and in the evening withhold not thine hand; for thou knowest not whether shall prosper either this or that, or whether they both shall be alike good."

The farmer above all men seems to be beset with difficulties that at times appear to be overwhelming. From the initial sowing of crops until the harvest is garnered in the bins the fortunes of his season's venture is surrounded with uncertainty. From bumper crops he jumps to heavy shrinkages. Deterioration falls with uneven hand over the land.

But, it is pointed out, the farmer is assuming the risks attendant upon every sowing, has the co-operation of the speculator in futures who reduces the risk of the farmer. There is no loss which the grower may have to face that is not compensated for in the prices ruling on the exchanges. How much the farmers owe to the speculator for the data which disclosed the world-wide shortage in wheat, the strong position which it gave our exportable surplus and the indisputable fact that had this information not squared with the reports the speculator who bought on this theory would have lost, not the farmer who met an advancing market to sell the first offerings from his 1907 crop.

Here in a very emphatic manner is shown the well-known but little acknowledged fact that it is the speculator who takes the risk and not the man with the goods to sell. It is true that all speculation is not buying for the rise; but what is of value for the farmer to remember is that the short seller cannot put the market below the legitimate price without getting "burned." The last effective advance in the wheat price is proof enough to this statement.—Market Record.

PARABLE OF THE GRAIN DEALER.

He ariseth in the morning and goeth forth to his daily labor, and he worketh far into the night; for there is little to earn and many to keep.

Lo, and behold, there comes the downtrodden farmer with his wheat, and he asketh the price in the market place; and when the dealer telleth him, the farmer is wroth and sore distressed, and he maketh a loud noise (for he readeth the reports).

But wisdom prevaleth in the council and after much persuasion he selleth his wheat at a great price and waxeth rich.

And the dealer loadeth the wheat and billeth it to his commission house; but it is many days upon the journey, and the market slumppeth and his anger is great.

Then, lo, and behold, the wheat arrives "hot" and he teareth his hair in vain regret.

And it came to pass that the downtrodden farmer rideth in an automobile and carrieth a check book, while the grain dealer is found at his labor with one suspender.—*Oketo, Kan., Eagle.*

John Knapp, manager of the Farmers' Elevator at Dike, Iowa, has retired from the elevator business.

PERSONAL

C. H. Hanson will have charge of an elevator at Guelph, N. D., this season.

Edward Frank has assumed charge of the Urin-ston Elevator at Frankton, Ind.

S. C. Tollefson has taken charge of the Duluth Elevator Co.'s house at Milton, N. D.

Charles Morton has accepted the position of agent at the Atlantic Elevator at Loma, N. D.

The Atlas Elevator Co. has transferred C. Bennett from Perkins, Iowa, to Orchard, Neb.

Oscar Gilbertson has taken charge of the St. Anthony & Dakota Elevator at Souris, N. D.

M. O. Rhud has succeeded Stephen Hayes as agent at the Occident Elevators at Spiritwood, N. D.

F. L. Neal has accepted the position of manager of the Arlington Grain Co.'s elevator at Arlington, Ill.

Wm. Fearington, of Mullen, Ill., has accepted a position with Bartlett, Kuhn & Co., at Vincennes, Ind.

Alfred Anderson of Grand Forks, is now wheat buyer at the Monarch Elevator at White Rock, S. D.

The St. Anthony and Dakota Elevator Co. has transferred F. M. Smith from Willow City to Hope, N. D.

John T. White of Ottawa county, Kan., has been appointed state grain inspector, with offices at Kansas City.

William Pfau has resigned as manager of the elevator at Souris, N. D., and will return to his old home at Barlow, N. D.

O. I. Sethre has removed from Verndale, Minn., to Mooreton, S. D., where he will manage the elevator of the Andrews Grain Co.

F. J. Soule, formerly accountant at the Bay State Mills, Winona, Minn., has been appointed treasurer of the Bay State Elevator Co.

Joseph Anderson, formerly agent for the Omaha Elevator Co. at Valley, Neb., is now in charge of another elevator at that point.

The Walnut Grain Co. of Walnut, Ill., has secured the services of J. C. Meisenheimer to succeed Frank Neal, who has removed to Arlington, Ill.

Fred Current, manager of the elevator of J. M. Current & Son at Indianola, Ill., is regaining his health after a severe attack of pneumonia.

Joseph Hayward has severed his connection with the firm of Hayward Bros., grain dealers at Cropsey, Ill., and removed to another location.

Elmer Steffenson of Bricelyn, Minn., will shortly remove to Kester, Minn., where he will take charge of the business of the Independent Grain & Lumber Co.

Carl Krause of Triumph, Minn., has removed to Grover, S. D., where he has taken charge of the lumber yard and elevator of the Hawkeye Elevator Co.

Harvey Meyer, manager of the grain elevator at Arenzville, Ill., was married to Miss Helen Ring of Virginia, Ill., on April 30, at the bride's home in that city.

J. L. Frederick, president of the J. L. Frederick Grain Co. of St. Joseph, Mo., and Miss Juanita Solman, were recently united in marriage at Kansas City, Mo.

Clarence Bauman, formerly manager of the Gray Elevator at Onawa, Iowa, has accepted the position of manager of an elevator at Orson, Iowa, and removed to that place.

Warren Smail, until recently in charge of the Rogers Grain Co.'s elevator at Ocoyoa, Ill., is now serving the company as an extra man, the house at Ocoyoa having been sold to other parties.

W. J. Marshall, president of the Farmers' Grain and Fuel Co. of Wauhaw, S. D., has resigned, and will remove to Webster, S. D., where he will build an elevator for the local farmers' company.

D. S. Sullivan, president of the Sullivan Elevator Co., 304 Chamber of Commerce, Minneapolis, has been missing since March 27, and all efforts to locate him have been vain. J. M. Sullivan, brother of the missing man, has offered a reward of \$500 for information as to his whereabouts.

E. P. Wilkins, lieutenant of police at Hopkinsville, Ky., has resigned from the force, to become secretary and treasurer of the Monarch Grain Co., of that city, succeeding Charles S. Jackson, who retires from the company. Mr. Wilkins has purchased a block of stock in the corporation.

S. L. Chapin has resigned as manager of the Luverne Co-Operative Elevator Co. of Luverne, Minn., and accepted a position as traveling representative for Seidl & Dalton of Minneapolis, with a territory embracing western Minnesota and the eastern part of the Dakotas. I. W. Brown succeeds to Mr. Chapin's former position.

GRAIN LEGISLATION.

The passage of any of the bills introduced in the present Congress to regulate the purchase and sale of grain futures would have a most serious effect upon the trade in grain and in the manufacture of its products. The effect would be to move the methods of handling and to some extent the manufacture, back fifty years. Then it was that the methods of contracting for future delivery were not in use and the price paid the farmer was less compared with the price at the mill or terminal market than now, owing to the hazard of a decline in values.

A miller may calculate that for safety he should have a stock of wheat on hand to carry him through the slow movement that is usual in July and August, and he buys it and puts in store at the rate of $4\frac{1}{2}$ bushels for each barrel of flour. Suppose he figures on 10c a barrel net profit for his flour and the market for wheat declines $2\frac{1}{4}$ c a bushel, the profit is gone and he stands for a small loss besides.

Under the operation of these bills recently introduced he could not "hedge" for there would be none for sale for future delivery, except by speculators, and the proposed laws would have put them out of business. On the other hand, if he does not buy and store the grain, he will have to go out of business also, for shippers will have carried off the supplies. The new crop grain that comes in later is not cured until it has been several weeks in store and that is yet unfit to be ground. He would be forced therefore to carry a stock of grain on a speculative basis or to close his business and discharge his help to comply with the requirements of the proposed legislation.

The receiver of new grain will not carry it forward for the benefit of the miller for he would not be able to hedge it. There is but one buyer left and he is the shipper who would, without competition of the industries, make his own price. He, too, being unable to hedge and having to take the chances of changing market prices, would have to take into account possible loss in price and figure accordingly.

That speculation in grain as conducted in the regular exchanges tends to maintain higher prices, is known by all of large experience in the trade. That fact is sustained not alone by the history of the trade, but common sense, as well, teaches that the more extended the demand the stronger the price will be and that the elimination of risk in the movement of the property by hedging tends to the same end.

Capital will not take up a hazardous business without the inducement of larger prospective profits to equal the chance of loss. Then to reduce the risk to the minimum or to remove it altogether some form of insurance is a necessity. Competition has forced into use the best yet known form, that of selling futures, which has reduced the cost of distribution to the present and lowest ever known.—Market Record.

VELVET CHAFF WHEAT.

The Minnesota legislative committee appointed to examine into the milling quality of wheat chaff has made a report, as follows:

Your committee has examined witnesses and investigated such matters as were pertinent to the investigation as carefully and completely as time would permit, and as a result of said investigation, we find the following facts and make the following recommendations:

Your committee secured average samples of blue stem wheat and velvet chaff wheat respectively, and had chemical, milling and baking tests made at the state experiment stations of Minnesota and North Dakota, and by the Howard Wheat and Flour Testing Laboratory of Minneapolis. The results from these tests showed that the velvet chaff did not quite come up in quality to that of blue stem, but these samples gave velvet chaff a higher test than any samples tested by the State Board of Appeals prior to these tests.

The millers of the state were granted a hearing before the committee. They were of the unanimous opinion that unless precaution was taken in time, Minnesota flour would lose its present high standing in the flour markets of the world. They testified that velvet chaff wheat was not equal to blue stem wheat for flour making purposes.

The Minneapolis grain inspection board were before the committee. They testified that thirty or more tests of velvet chaff had been made for them by chemists in Minnesota and the Dakotas, from samples from different points in Minnesota and the Dakotas. These facts all showed velvet chaff not equal to blue stem. They also stated that samples had been secured from Montevideo, Sacred Heart, Olivia, Renville and Bird Island, and the tests from these samples were very much superior to tests made heretofore. Based on all information that could be obtained your committee is of the opinion that there is a difference in the milling qualities of velvet chaff and the northern grades.

Your committee is of the opinion that the milling qualities of velvet chaff wheat varies largely in the different communities where it is raised. Your committee is also of the opinion that the spread in price between velvet chaff and northern grades the past

season has been greater than the relative milling qualities will warrant. Owing to the lack of information on the relative milling values of the different varieties of wheat, your committee recommends that a complete laboratory for milling and testing purposes be established at the State Agricultural College, and that the professor of chemistry be directed to make a complete study and investigation of the relative milling qualities of the different varieties of wheat grown in the state, and that he shall report the results from such analysis to the Railroad and Warehouse Commission, the chief grain inspector and to the appeal board, and the results of such investigation shall also be given to the public in bulletin form.

WHAT MR. SCOTT FOUND.

Representative Scott of Kansas, chairman of the House Committee on Agriculture and sponsor of a bill to abolish trading in futures, has perpetrated a huge bit of humor without being conscious of its laugh-provoking power. At the time the agitation was so pronounced against the grain markets the gentleman had his little bill to spring as the panacea of dear bread, but when it came to meet the demands of certain bakers and millers that the duty be removed from wheat, Mr. Scott, who represented the great commonwealth of Kansas, did not relish such a radical step.

In fact, the gentleman admits that he investigated condition in Canada and could see no cure of domestic market conditions by admitting Canadian wheat free because *wheat in Canada was as high as in the United States*. If Mr. Scott had only gone further in his investigations he would have found the wheat is not only high in the United States and in Canada but in all the countries of the world. Furthermore a genuine investigation would have uncovered the knowledge that wheat is high because the international supply position is short and that legislation against the high price of wheat is equal to the famous fight of Don Quixote against the windmill.

It is a mistaken notion that the price of wheat is made in the pit. It is true that there is centered all the conflicting factors in the world's situation that are at work to strike a balance, but the real determining factor is the economic law of supply and demand. The exceptionally high price this season that have prevailed since the early marketing of the crop with the natural appreciation due to the decreasing stocks as the tag end of the season is due to the delicately adjusted supply and demand position and until this fact is remedied by the building up of reserves by large harvests there can be no return to cheap wheat.

There has been little intelligent discussion of the wheat situation by the press or those whose position gives them an opportunity to pose in the limelight. Speculation never runs counter to natural conditions and if it were not for the dissemination of news and the general knowledge covering the world's wheat situation we would have, as we do in nearly all articles of commerce, blind pools.—Market Record.

THE OUTLOOK IN ARGENTINA.

"The new year has begun with the most brilliant prospects for the Argentine Republic," says the Buenos Ayres correspondent of the London Economist. "With the exception of the province of Corrientes, where the dissensions of the political parties have led to assassinations, and have produced a situation which may necessitate another national intervention, the whole country is in the enjoyment of profound peace, and its relations with foreign nations are of the most friendly character. The harvest of wheat, linseed and oats has proceeded satisfactorily; the maize plant is in excellent condition, and with a little rain now and then the maize crop will probably yield 6,000,000 tons.

"An official statement has been published respecting the exportation of the principal products of the republic during the year 1908, and a comparison of the figures with the exportation of the preceding year. This shows that the quantity of wheat exported was 3,636,294 tons, an increase of 955,492. Flour diminished by 14,000 tons to 113,500. Linseed increased by 292,000 tons to 1,055,650, and maize by 435,000 tons to 1,712,000. The exports of oats reached 440,000 tons.

"The official estimates of the results of this year's harvest are very moderate viz., the production of 4,650,000 tons of wheat (which would give about 3,350,000 for exportation), 1,000,000 tons of linseed, and 850,000 tons of oats for exportation, and a production of 6,000,000 tons of maize. Having regard to the fact that the area of grain-growing land has been considerably larger than the preceding season, that the weather has been, upon the whole, favorable, and that the locusts have not committed serious ravages, there is good reason for believing that the official estimates will be much exceeded."

Send us the grain news of your neighborhood.

Warm Weather
is Coming

AND

¶ With it a lot of out of conditioned grain.

¶ Can you handle it profitably?

¶ Not unless you have installed a conditioner and drier built on scientific principles.

¶ The Ellis Drier and Conditioner IS built on scientific principles; that explains its unqualified success.

¶ Our machines for the small elevator are specially constructed.

¶ They are compact.

¶ Their cost is low.

¶ They use cold air only and can be placed in the elevator itself with no increase in the insurance.

¶ Will you drop us a line and let us give you information?

The Ellis Drier Co.

Postal Telegraph Bldg.

CHICAGO

LATE PATENTS

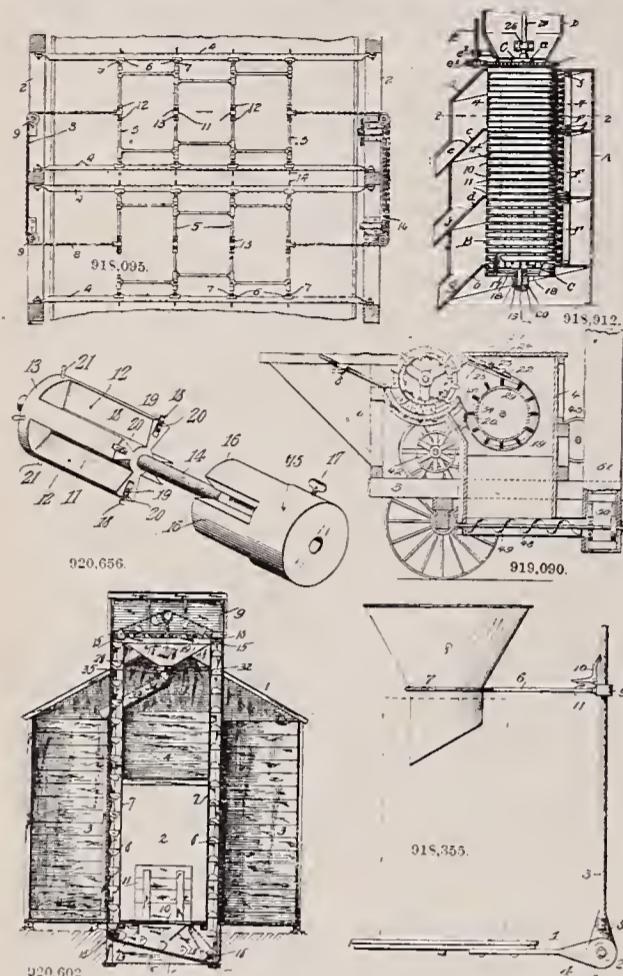
Issued on April 13, 1909.

Attachment for Grain-Cleaning Machines.—Charles H. Scott, Minneapolis, Minn. Filed December 10, 1906. No. 918,095. See cut.

Bag Holder.—John R. McGowan, Gaffney, S. C. Filed October 5, 1906. No. 918,355. See cut.

Issued on April 20, 1909.

Grain-Grader.—George H. Rich, Chicago, Ill. Filed November 2, 1908. No. 918,912. See cut.



Alfalfa Reducing Machine.—Lewis W. Thompson, Osborne, Kan. Filed September 18, 1907. No. 919,090. See cut.

Issued on April 27, 1909.

Conveyor.—Albert J. Meyer, Nazareth, Pa. Filed April 28, 1908. No. 919,615. See cut.

Issued on May 4, 1909.

Elevating Device.—Alfred F. Meyer, Roanoke, Ill. Filed February 25, 1907. No. 920,602. See cut.

Grain Meter.—William Ross, Louisville, Ky. Filed June 22, 1908. No. 620,656. See cut.

STOPPING SPECULATION.

During every marked advance in the price of grain on the exchange, there is the demand for laws or other devices for "stopping speculation in food products." So when Mr. Patten's May deal was at its height, Congressman Scott, chairman of the House Committee on Agriculture, announced that he would introduce a bill forbidding the use of all means of communication for the transmission of information relating to dealings in futures. By this method Congress put the Louisiana lottery out of business. The suggestion met with favor among the Southern members opposed to cotton futures. "Putting up the price of wheat after it has left the hands of the producer serves no useful purpose that I can see," said Mr. Scott. "If wheat and bread increase in price the tax is placed on those least able to bear it. I am personally satisfied that the panic of 1907 could have been avoided if the money tied up speculative future deals had been available for legitimate basis."

On April 18, E. H. Price, of New York, export agent of the Millers' National Federation, wrote Secretary of State Knox, calling his attention to the "tremendous hardship being worked on the millers of this country and thereby upon the people by the reckless and unscrupulous speculation in wheat. . . . It seems to me that the matter is entirely removed from legitimate dealing in stocks and bonds, and where the elementary food of the people is affected, the Government ought to be in some position to offer adequate protection."

To the letter was attached one from Mandeville C. Jacobus, of Paris, who said:

The Ambassador has handed me your letter of February 6, addressed to him, and has requested me to reply thereto in my capacity as counsel to the Embassy.

Such law as exists in France covering the question [of prohibiting speculation] which interests you, is found in the French Penal Code, articles 419 and 420. These, translated, are as follows:

"All those who, by false or calumnious facts sown with design among the public, by offers made at prices which the sellers themselves are asking, or by a reunion or coalition between the principal holders of a merchandise or foodstuff tending to a refusal, or to a refusal to sell except at certain prices, or who by fraudulent ways or means of whatsoever nature, have affected the rise or fall of the price of food stuffs or merchandise, or of paper or public effects (bills and notes), above or below the price which would have been determined by the natural and free competition of commerce, shall be punished by imprisonment of from one month to a year, and a fine of from 500 to 10,000 francs. The guilty parties may in addition be placed by the judgment under the surveillance of the secret service during two years at least, and five years at longest."

"Article 420.—The penalty shall be imprisonment for two months at least and two years at the most, and a fine of 1,000 to 20,000 francs, if these manœuvres have been practiced in regard to cereals, tailings, flour, farinaceous substances, bread, wine, or any other drink. The surveillance which can be pronounced shall be of five years at least and ten years at the most."

This letter being referred to the Department of Justice, Attorney-General Wickersham had a conference with the President, when it was decided that the Government could do nothing in the premises. However, it is said by the New York Commercial Bulletin that—

Many government officials are, however, in favor of some legislation that will restrict speculation in the necessities of life. J. M. Carson, the chief of the Bureau of Manufactures of the Department of Commerce and Labor, took much interest in the letter from Mr. Price, and declares he will have his special agents look into the laws of foreign countries upon the subject of such speculation. Mr. Carson has already published a communication from Special Agent M. H. Davis on this subject, in which the latter claims that "the dealing in futures or option trading has ceased to be of material value as an agent for attracting any considerable foreign trade to the United States. Its usefulness in quickly and safely moving large quantities of grain to terminal markets early in the movement of crops may not be disputed. Conservative and able men have recognized and champion the American option system, and their influence has heretofore prevented legislation adverse to it."

Another means of stopping this "evil" was a bill introduced in the lower house of Congress by Representative Hughes, of West Virginia, directing the Secretary of the Treasury to rebate the duty on all wheat imported into the United States for one year from the time of the passage of his measure. The bill was referred to the ways and means committee, which is said to be "considering several other proposed changes in the wheat schedules."

Anti-future bills were introduced in the legislatures of both Illinois and Wisconsin.

The press in all parts of the country, as usual on such occasions, almost unanimously demanded a law restricting dealing in futures. Most of this opinion was absolutely worthless and has had no weight with anyone, except the unthinking crowd. There is, however, some criticism of the system that is interesting, at least, considering its source. For example, the Boston Globe on May 2, propounded the question, "Should Speculation in Foodstuffs be Permitted by Law?" to four prominent Bostonians, to-wit: B. J. Rockwell, President Bay State Milling Co.; Geo. W. Eddy, grain exporter; W. A. Webster, attorney, and F. H. Wentworth, economist. Mr. Rockwell said, in part, that—

Transactions in foodstuffs should be restricted by law to purchase and sale of the actual commodities; trading for future delivery should be rigidly regulated and speculation pure and simple should be prohibited.

The problem of regulation is not easy to solve, but neither is it impossible.

In many of the greatest markets of the world there is no trading in "futures," transactions being confined to parcels and cargoes of grain either on the spot or actually in transit.

What are known as "hedging" sales, that is sales made in central markets against purchases of actual grain in the interior, are entirely legitimate, as would be purchases of grain actually on hand, in transit, or contracted for with grain producers or distributors in the interior, by millers, grain dealers or exporters. But such legitimate transactions would form but a small fractional part of the total sales made in even one great speculative market—Chicago—where the entire crop of wheat, for example, is sold over and over again every year, while transactions in a single day often exceed the total crop of an entire state.

These "paper" transactions, seldom intended to be completed by the delivery of the actual grain, have a thoroughly demoralizing effect. They serve no useful purpose and as a matter of fact, they work to the disadvantage of both the producer and consumer. They result in an undue depression of prices during the season when farmers are selling most freely and in an undue and often unwarranted advance in prices after the farmer has disposed of the greater portion of his product, such advance being at the direct expense of the consumer. It should be understood that the heavy crop movement

does not extend over two or three months; 50 per cent is probably marketed within 60 days and 65 to 70 per cent within four months of harvest.

Mr. Webster, attorney, also said that sales for future delivery should be forbidden.—

Speculation in the necessities of life should be prohibited by law. There is hardly a good reason against it, but the law should be stringent and severe, and should provide for a prison penalty. A fine will not suffice. By the present common law of England such speculation by several persons is illegal, and contracts or conspiracies by them cornering, or attempting to corner, necessities of life are unenforceable in a court of law. This is also the common law in many of the states of the Union, although it seems to have fallen into disuse in practice in most states.

The idea of combining to force up the price of food products has always been abhorrent to everybody but the speculator. It was a crime even in ancient Rome. Today, both France and Germany have strict laws which provide prison penalties for persons attempting to corner foodstuffs or who speculate in grain futures, and the laws there are reasonably effective.

The difficulty in the United States lies in the fact that the national government can at best deal with only part of the question, namely, as it affects interstate commerce. The Supreme Court of the United States has limited interstate commerce, in meaning, to the movement of articles from one state to another, and this movement is held not to begin until the articles have been shipped or started for transportation from one state to another. Thus it will be seen that it is chiefly a problem for the separate states to handle, rather than the United States.

The 46 states have unquestioned jurisdiction to prohibit speculation in the necessities of life, and the real remedy must come from them. To be candid, however, almost any law passed in this country prohibiting it will be ignored, and the low grade of financial and political integrity prevalent in most American communities will make it a farce, unless public opinion is decidedly roused from its present lethargy. If the English language, as expressed by the present Illinois law, means anything, Patten and his associates have committed crime in at least three different ways; yet nothing is done or probably will be done. The only remedy will be to touch the public conscience to such an extent that every prosecuting officer will be compelled to enforce the law or be run out of office.

Geo. W. Eddy, grain exporter, believes in the necessity of the system of handling grain through the exchanges as now prevails, but he added:

The manipulation of the grain markets is, of course, undesirable, as it benefits the few at the expense of the many. The manipulator who buys a large quantity of grain for delivery in any given month does not buy this grain because he wants to take delivery of it, but because he hopes to buy more than can be delivered and consequently force the shorts to settle.

The best remedy for this would seem to be to make all grades of merchantable grain deliverable on contract at proper allowances for the value of lower grades as compared with the higher. Under this plan the manipulator would have to take delivery of the grain which he buys for future delivery when his contracts mature and would then be obliged to merchandise the cash grain instead of simply selling out his contracts in advance. This would spoil his "deal," as the profit as a rule is derived from forcing the shorts to settle, and not from the merchandising of the grain that is actually delivered on contracts.

Franklin H. Wentworth is described as an economist. He says:

In the common gambling house, nothing is hazarded except the property of those who desire to risk it. . . . Such spectacular winnings by one person as those recently chronicled in Chicago are only occasional; but a considerable class of men popularly known as "board of trade men," take lesser amounts year after year with an equally mischievous social result.

The remainder is of no consequence: as Mr. Wentworth's "economics" are pure balderdash.

The B. & A. R. R. Co. has placed an order for 4,000 tons of steel for the new elevator in South Boston.

"I think you will see federal legislation grow out of this deal in wheat before long," said Secretary of Agriculture Wilson at Chicago on May 10.

It is expected that the cold and backward spring will make hay high in Michigan this fall, as farmers have to feed stock so late, no pasturage, as in previous years.

Fire from burning grass along the line of the G. N. R. R. recently ignited the engine room of Womack & Sturgis' grain elevator at Taylor, Texas. The damage to the machinery and building amounted to \$200.

Corn men are becoming more and more mixed in their views. Cash corn is undeniably strong. The Quaker Oats Company yesterday paid 75¢ per bu. for a car of No. 1 yellow corn to arrive, and No. 3 corn was bringing 2c per bu. over May delivery price. Speculators, however, were inclined to be very bearish on deferred deliveries because of the fact that corn planting is rapidly nearing completion on the largest acreage ever seeded in this country.—Record-Herald. May 10.

NEW GRAIN INSPECTORS.

James Connell has been appointed chief grain inspector for the Milwaukee Chamber of Commerce, vice F. D. Hinkley, resigned. The appointment became effective on April 12.

A. G. McBean, a well known expert in the inspection of grain, has been appointed grain inspector for Montreal and district by the authorities at Ottawa, and has been asked to take charge of the grain inspector's office in this city at once. The members of the Corn Exchange Association at Montreal are well-satisfied with the government's appointment, as they feel assured the grain inspection of this port will be considerably enhanced thereby.

John T. White, of Ada, Kan., has been appointed chief grain inspector for the state of Kansas, vice J. W. Radford. Mr. White has been a farmer. Mr. White announces that his policy will be to make his deputies work and to prevent the receivers from "bull-doing" his inspectors. Since Mr. White took charge it has been found that the receipts of the department for the last year ran about \$26,000 behind the expenses of maintaining the department. Mr. Radford says that the shipment of grain to Gulf ports through Wichita and Coffeyville, instead of by way of Kansas City, has made it necessary for the department to maintain inspectors at shipping points where the revenues from inspection are small.

Grain and Seeds

CANE SEED FOR SALE.

Orange and Red Top. Ask for prices.

ALVA MILL & ELEVATOR CO., Protection, Kan.

SELECTED SEED CORN FOR SALE.

Standard White and Yellow Dent varieties.

WESTERN SEED AND IRRIGATION CO., Fremont, Neb.

SEEDS FOR SALE.

Millet, Cane and Kaffir Corn in carlots. Prices on application.

J. G. PEPPARD, Kansas City, Mo.

NORTHERN SEED OATS.

We can supply choice, heavy seed oats, raised in our cold climate; very hardy and rustproof.

FARGO SEED HOUSE, Fargo, N. D.

COW PEAS FOR SALE.

Choice variety of New Era Cow Peas, in carload or local lots. If interested, ask for prices.

BERTRAND MERCANTILE AND GRAIN CO., Bertrand, Mo.

SEED CORN.

Well cured and matured, testing 98 per cent. Fancy Oats, Clover and Timothy Seed; graded; re-cleaned. Sample free.

DE WALL BROS., No. E., Proctor, Ill.

STRAIGHT OR MIXED CARS.

Write us for prices on Bran, Shorts, Kaffir Corn, Cane, Millet, Clover, Alfalfa Seed and Alfalfa Meal and Red Texas Oats. We can ship straight or mixed cars.

SIMMONDS-SHIELDS GRAIN CO., Kansas City, Mo.

FLOUR AND MILL FEEDS.

Mixed cars of flour and mill feeds in 100-pound sacks are our specialties. Would like to send you a trial order to convince you of the superiority of our products.

ANSTED & BURK CO., Springfield, Ohio.

SEED CORN.

Pure-bred, high-yielding varieties—Reid's Yellow Dent, Early Yellow Dent and Silver King White Dent. Plant this Northern-Illinois-grown seed and you will not have soft corn. Write for my freight-prepaid prices to grain dealers.

L. C. BROWN, La Grange, Ill.

For Sale

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

ELEVATORS AND MILLS

FOR SALE.

Elevators in Illinois and Indiana that handle from 150,000 bushels to 300,000 bushels annually. Good locations. Prices very reasonable. Address.

JAMES M. MAGUIRE, Campus, Ill.

FOR SALE.

Grain elevator and lumber yard in small town eastern Iowa. Good point. Rich farming country. Price right. Good reasons for selling. Address

1632 2ND AVE E., Cedar Rapids, Iowa.

FOR SALE.

Five country elevators on Santa Fe between Florence and Lyons, Kan., also Terminal Elevator 75,000 bushels capacity at Florence. For particulars address

DAVID HEENAN, Wichita, Kan.

FOR SALE.

Grain elevator 40,000 bushels capacity, on Soo Line, Carrington, N. D. Three other elevators in town; one independent, two line houses; no trades. Address

B. L. RUSSELL, Secretary, Carrington, N. D.

FOR SALE.

Line of ten elevators, seven in South Central and Northwestern Minnesota, three in Southern Minnesota, all good points; \$45,000.00. Easy terms if taken at once. Good reason for selling. For particulars, address

J. H. BALL, 422 Board of Trade, Duluth, Minn.

LINE OF GRAIN ELEVATORS AND CLEANING HOUSE.

One of the best lines of grain elevators and cleaning houses in Minnesota, on good line of railroad, at the low price of \$60,000. Owners wish to retire from the grain business. Splendid grain-buying points and also coal business in connection. Address

J. D. MILLER, Endicott Bldg., St. Paul, Minn.

FOR SALE.

Saint Claire Elevator of the insolvent St. Louis Hay & Grain Co., located in East St. Louis, 150 feet river front on the Wiggins Ferry Terminal tracks; elevator practically new, not one cent repairs needed. One of the best, most complete jobbing, sacking and transfer houses ever built in this city for sale at a sacrifice. Address

C. W. SMITH, Trustee for the creditors of the St. Louis Hay & Grain Co., Chamber of Commerce, St. Louis, Mo.

FOR SALE.

Elevator and lucrative business. Elevator capacity, 75,000 bushels; all latest improvements, with electric power, etc.; large grain warehouse; large fireproof brick hemp house; coal and grain business. Situated in the best of the Blue Grass region, Georgetown, Scott County, Ky. Only elevator in county; annual wheat production, 400,000 bushels. Georgetown has a population of 8,000. Three railroads in our yards. For particulars address

S. S. OFFUTT & CO., Georgetown, Ky.

MACHINERY

FOR SALE.

Steam engine, 10x16 stationary, \$140. ELMER CALKINS, Petoskey, Mich.

ENGINES FOR SALE.

Gasoline engines for sale; 5, 7, 10, 20, 30 and 45 horsepower.

TEMPLE PUMP CO., 15th Place, Chicago, Ill.

FOR SALE.

Fifteen-horsepower Otto Gasoline Engine and all fixtures for same, ready to run.

BELT ELEVATOR & FEED CO., Indianapolis, Ind.

FOR SALE.

One 30-horsepower single cylinder stationary gasoline engine very cheap. Address

J. H. ALLEN & CO., St. Paul, Minn.

FOR SALE.

One 15-horsepower Ohio Gas Engine with complete outfit. A bargain. Address

GEO. RINKENBERGER, Washington, Ill.

FOR SALE.

Ten 2-horsepower Fairbanks-Morse "J. O. A. T." Gasoline Engines, used one week, \$65 each.

WILMOT MACHINERY CO., 722 Gravier St., New Orleans, La.

FOR SALE.

Two boilers, 72 x 18; head, 1/2-inch steel; shell, 3/8-inch; flues, 4-inch; 88 pounds pressure; made by Murray Iron Works Co. Apply

ROSENBAUM BROTHERS, 77 Board of Trade, Chicago.

ENGINE FOR SALE.

On account of enlargement of our plant, we offer a 40-horsepower gas or gasoline engine for sale at a genuine bargain. For particulars address

GLOBE PLASTER CO., Buffalo, N. Y.

FOR SALE.

One 50-horsepower Rice Automatic Cut-Off Steam Engine. Can be seen in operation until June 1. We are obliged to have a larger engine. Address

ETNA LUMBER, GRAIN & MILLING CO., Etna Green, Ind.

FOR SALE.

One 15-horsepower gasoline engine and one No. 8 N. P. Bowsher Crusher, used only one month; in first-class condition; a bargain. Write for particulars.

STEPHEN H. ARMSTRONG, Fredericksburg, Ind.

SCALES

SCALES FOR SALE.

Scales for elevators, mills, or for hay, grain or stock; new or second-hand at lowest prices. Lists free.

CHICAGO SCALE CO., 299 Jackson Boulevard, Chicago, Ill.

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

WANTED.

An intelligent young man, with some elevator experience, to take charge of our farm seed cleaning department.

JOHN A. SALZER SEED CO., La Crosse, Wis.

WANTED.

A partner with \$3,000 or \$4,000. New 150-barrel mill at Wallula, Wash. I am a miller; will divide \$3,000 bonus. Best opportunity in the Northwest. Address

W. R. BUTLER, Wallula, Wash.

WANTED.

Kansas hard wheat mill wants competent elevator man, by June 1, to run mill elevator. German preferred. Send references and state salary expected in first letter.

THE EAGLE MILLING CO., Newton, Kan.

WANTED.

Manager for a 350-barrel spring wheat mill. An energetic, experienced, reliable man, who would take \$5,000 stock in company. Going business and chance for development. Profitable municipal lighting. Only those who care to invest need apply. We want manager interested in company as present stock holders are non-resident. Address

MINNESOTA, Box 4, care "American Elevator and Grain Trade," Chicago, Ill.

POSITIONS WANTED.

POSITION WANTED.

As manager of country elevator, by experienced, capable man. Address

C. J. MEYER, Frankfort, Ill.

WANTED.

Experienced, sober, capable married man wants position as auditor or manager of line of elevators. Best of references. Address

RICHARD BURKE, Devils Lake, N. D.

ELEVATORS WANTED

WANTED.

Elevator or mill and elevator for good improved Illinois or Iowa farm. Address

IOWA, Box 1, care "American Elevator and Grain Trade," Chicago, Ill.

SAVE TIME,
LABOR, FUEL

and avoid exposure to the weather, by installing a Schmitz Scale Ticket Passer

By its use the ticket is passed from the office to teamster with one movement of the hand.

Write for full particulars to

J. A. SCHMITZ
2811 North Hermitage Avenue
CHICAGO

ROOFING AND SIDING

SYKES STEEL ROOFING CO.

114 W. 19th Place, Chicago

MAKERS OF FIREPROOF WINDOWS

WE manufacture all gauges of corrugated iron, either painted or galvanized. We make Patent Cap Roofing, Roll Cap roofing, "V" Crimped Roofing, Metal Ceilings, etc., etc.

We make a specialty of

Corrugated Iron and
Metal Roofing
For Grain Elevators

And take contracts either for material alone or job completed. Write us for prices. We can save you money.

LANCASTER

DO YOU REALIZE

That country trade always pays you best in every way?

We work a large country business. See the point?

JONAS F. EBY & SON, LANCASTER, PA.

GRAIN RECEIVERS

MILWAUKEE

ST. LOUIS

O. MOHR, Mgr. G. C. HOLSTEIN, Sec'y-Treas.

Mohr-Holstein Commission Co.

29 Chamber of Commerce

MILWAUKEE

Sample Grain a Specialty

BRANCH OFFICES AT CHICAGO, MINNEAPOLIS

B. G. Ellsworth, President H. H. Peterson, Vice-President
E. H. Hiemke, Secretary

L. Bartlett & Son Co.

GRAIN

COMMISSION MERCHANTS

Room 23 Chamber of Commerce Building
MILWAUKEE, WIS.

The Franke Grain Company

Receivers and Shippers of

GRAIN AND MILL-FEED

Rooms 43-44 Chamber of Commerce

MILWAUKEE, WIS.

OUR SPECIALTIES:

Malting Barley
Milling and Distilling Rye

FAGG & TAYLOR, Shippers
MILWAUKEE, WIS.

PEORIA

ESTABLISHED 1875.

P. B. & C. C. MILES

Grain Commission Merchants
BUYERS AND SHIPPERS

36-37 Chamber of Commerce, PEORIA, ILL.

A. G. TYNG, Jr.

D. D. HALL

TYNG, HALL & CO.
Grain and Commission
Merchants

Rooms 33 and 35 Chamber of Commerce
PEORIA, ILLINOIS

PITTSBURG

D. G. Stewart & Geidel

GRAIN, HAY AND FEED

RYE A SPECIALTY

Office 1019 Liberty St. Pittsburg, Pa.

Proprietors Iron City Grain Elevator.
Capacity 300,000 bu.

HAY AND GRAIN

We want to hear from shippers of hay and grain. Our direct service to large consumers in this district enables us to get top prices for good shipments. Liberal advances to consignors.

DANIEL McCAFFREY'S SONS CO.
PITTSBURGH, PA.

References: Washington Nat. Bank. Duquesne Nat. Bank

Daniel P. Byrne & Co.

General Commission Merchants

SUCCESSORS TO

Redmond Cleary Com. Co.

Established 1854

Incorporated 1887

Grain, Hay, Mill Feed and Seeds
Chamber of Commerce

St. Louis, Missouri.

Slack-Fuller Grain Co.

RECEIVERS AND SHIPPERS OF

GRAIN

CONSIGNMENTS SOLICITED

208 Merchants' Exchange ST. LOUIS, MO.

Ship your Grain, Hay and Seeds to

John Mullally Com. Co.

St. Louis, Mo.

Best of attention paid at all times to all consignments.

Members St. Louis Merchants' Exchange and Chicago

Board of Trade.

PICKER & BEARDSLEY COM. CO.

St. Louis, Mo.

GRAIN, HAY and GRASS SEEDS

We protect your interest on grades and weights and make prompt returns. Try us for RESULTS when you ship to St. Louis. Established 1876.

Thos. Cochrane, Lincoln, Neb.

M. W. Cochrane, St. Louis.

Cochrane Grain Co.

Receivers and Shippers of

GRAIN AND HAY AND SEEDS

305 and 306 Chamber of Commerce, ST. LOUIS

MARSHALL HALL, Pres.

J. B. BETHUNE, Secy.-Treas.

W. L. Green Commission Co.

GRAIN

Members Merchants Exchange of St. Louis.
Chicago Board of Trade.

203 Merchants Exchange, ST. LOUIS, MO.

DETROIT

A. S. DUMONT R. C. ROBERTS R. L. HUGHES

Dumont, Roberts & Co.

RECEIVERS GRAIN SHIPPERS

Chamber of Commerce

DETROIT, MICH.

Consignments Solicited.

Ask for our bids and quotations.

CAUGHEY & CARRAN

DETROIT, MICH.

Grain and Seed Merchants and Commission

OUR SPECIALTY: OATS AND CLOVER SEED

We handle Beans, Barley, Rye, Corn, Wheat. Try us. Liberal advances.

OFFICES: 620 to 624 Chamber of Commerce

ELEVATOR and SEED HOUSE: Cor. 14th and Baker Sts.

GRAIN RECEIVERS

TOLEDO

ESTABLISHED 1846

Be Friendly.
Write Occasionally.

C. A. KING & CO.

Toledo leads the world on Clover Seed. It is one of our leaders. Favor us with your orders for futures and consignments. Read our specials.

The J. J. Coon Grain Co.

GRAIN, SEEDS AND FEED



61 Produce Exchange, TOLEDO, OHIO

Consignments Solicited

Cash and Futures

Frederick W. Rundell James E. Rundell
ESTABLISHED 1877

W. A. RUNDELL & CO.

Grain and Seeds

CASH AND FUTURES

Consignments Solicited Ask for our Daily Grain Bids
Room No. 33 Produce Exchange, TOLEDO, O.

FRED O. PADDOCK, Pres. JESSE W. YOUNG, V.-Pres.
ORMOND H. PADDOCK, Secy. & Treas.

The Paddock-Hodge Co.

GRAIN

TOLEDO,

OHIO

Cash and Futures—Wire, Write or Phone and we will give you our best services.

The Cuddeback Grain Co.

We buy track elevator for direct shipment to interior and eastern markets
Futures handled in Toledo or Chicago
Special attention given consignments

32 Produce Exchange, TOLEDO, OHIO

Toledo is the Place
Zahm is the Firm

USE both when trading in grain and seed futures. We are members of the Toledo and Chicago Boards, and will give you service that'll please. We've the best phone system of any house here. Use it—or wire—or write.

We issue a circular every business day in the year.

J. F. Zahm & Co.

Fred Mayer, Fred Jaeger TOLEDO, OHIO

TOLEDO

Active Markets

of late give splendid opportunities for trading in futures of grain and seed. For good service send your orders to **Southworth & Co., Toledo, Ohio**

JOHN WICKENHISER & CO.

Buyers and Shippers of Grain

We buy F. O. B. your station for direct shipment to interior points.

Personal attention to consignments.

TOLEDO, OHIO

BALTIMORE

LOUIS MÜLLER, Pres't. JOHN M. DENNIS, V.-Pres't.
FERDINAND A. MEYER, Treas.
THOMAS C. CRAFT, JR., Ass't Treas.

LOUIS MÜLLER CO.

Grain Receivers and Exporters

BALTIMORE, MD.

Members of the Baltimore Chamber of Commerce, Chicago Board of Trade, St. Louis Merchants' Exchange, Grain Dealers' National Association, Indiana Grain Dealers' Association.

GEO. A. HAX

Established 1882

J. B. WM. HAX

G. A. HAX & CO.

GRAIN AND HAY COMMISSION

445 North Street, - - - Baltimore, Md.

MEMBERS National Grain Dealers' Association
National Hay Association

CAIRO

H. L. Halliday Milling Co.

RECEIVERS AND SHIPPERS
CORN - WHEAT - OATS

CAIRO.

ILLINOIS

REDMAN, MAGEE & CO.

GRAIN

DELTA ELEVATOR, Cairo, Ill.

INDIANAPOLIS

The Bassett Grain Co.

INDIANAPOLIS

Telephones 80 Board of Trade

BUFFALO

W. W. ALDER

T. J. STOFER

ALDER & STOFER COMMISSION MERCHANTS

We do not buy any grain, but handle on commission, and solicit your Buffalo consignments

83 Chamber of Commerce, Buffalo, N. Y.

Electric Elevator and Milling Co.

Chamber of Commerce, Buffalo, N. Y.

Elevator Capacity 2,000,000 bu.
Has facilities for cleaning, separating, clipping and sacking grain. Receives and stores all rail and lake grain.

We Solicit Consignments

RUBINS & BRUSO

Grain and Commission Merchants

Members of all the Principal Exchanges

CONSIGNMENTS SOLICITED

203-216 Chamber of Commerce, BUFFALO, N. Y.

WALTER VOSS Manager

New York Office

305 Produce Exchange

L. S. CHURCHILL, President
G. W. BARTLETT, Treasurer

The Churchill Grain & Seed Co.

Commission Orders Executed. Grain and Seed Bought and Sold

Offices: Buffalo, N. Y.
Toledo, Ohio
Seed Warehouse:
Located at Toledo, Ohio

Members
New York Produce Exchange
Toledo Produce Exchange
Buffalo Corn Exchange

W. E. TOWNSEND

A. T. WARD

TOWNSEND-WARD CO.

GRAIN COMMISSION

Buffalo, - - - - - New York

We solicit your consignments for Buffalo market



GRAIN RECEIVERS

CHICAGO

CHICAGO

CHICAGO

**E. W. BAILEY & CO.****Commission Merchants**

GRAIN, SEEDS AND PROVISIONS

72 Board of Trade CHICAGO

GEO. S. DOLE, Pres. H. N. SAGER, Sec.
J. H. DOLE & CO.
 (Established 1852)
Commission Merchants, Grain and Seeds
 We solicit your
CONSIGNMENTS
 and orders in futures
 226 La Salle Street, - - - CHICAGO

PHILIP H. SCHIFFLIN, Pres. EUGENE SCHIFFLIN, Secy.-Treas.

PHILIP H. SCHIFFLIN & CO.
INCORPORATED**Commission Merchants**515-518 Postal Telegraph Bldg.
CHICAGO, ILLINOISConsignments of all kinds of Grain and Field
Seeds a specialty**C. H. THAYER & CO.**

GRAIN, SEEDS, FUTURES

Your Consignments and Future Orders Solicited
Our untried record for more than a quarter of a century, backed up with over \$100,000.00 capital, certainly
speaks for itself.2 and 4 Sherman St., CHICAGO
Minneapolis Milwaukee St. Louis Kansas City**T. E. WELLS & CO.**
COMMISSION MERCHANTS

1011-1017 ROYAL INSURANCE BUILDING, CHICAGO

Strict attention given to consignments or orders
Oats and Barley Specialties
Liberal Advances Made

W. M. TIMBERLAKE in charge Cash Grain Department

My customers do a profitable business
because I handle their consignments profitably
at this end. Try me on your Chicago
cash or future business.

B. S. ARMSTRONG

Postal Telegraph Building Chicago, Ill.

Lamson Bros. & Co.

ESTABLISHED 1874

Commission Merchants

...AND...

Track Buyers of Grain
6 Board of Trade CHICAGOBRANCH OFFICES IN IOWA
Des Moines Ft. Dodge Cedar Rapids
Iowa City Storm Lake Waterloo
Parkersburg Iowa Falls Mason City
Sioux City Independence Atlantic
Council Bluffs Ask for Bids Consignments Solicited

No ORDER too Large for Me to Execute

Grain Consignments my Specialty

SAM FINNEY

715 BOARD OF TRADE, CHICAGO

Or too Small to be Appreciated

522 POSTAL TEL. BLDG.
ARTHUR R. SAWERS
GRAIN MERCHANT
 CHICAGO
 TELEPHONE, HARRISON 1504

W. N. ECKHARDT, Pres. J. W. RADFORD, Vice-Prest.

Pope & Eckhardt Company
Commission Merchants
Grain and Seeds

317-321 Western Union Building

E. A. DOERN, Secy. C. E. SCARRITT, Treas.

CHICAGO

J. ROSENBAUM GRAIN CO.
 (INCORPORATED)
GRAIN MERCHANTS
CHICAGO

**RUMSEY & COMPANY**
COMMISSION MERCHANTS

Consignments a Specialty for Forty Years

Branch Offices
PEORIA
ST. LOUISI. P. RUMSEY
FRANK M. BUNCH
HENRY A. RUMSEY

J. H. WARE E. F. LELAND

Consign your grain and seeds and send your
Board of Trade Orders to**WARE & LELAND**400-410 Postal Telegraph Bldg. :: CHICAGO
Long Distance Phones : Harrison 4867 and 4868GRAIN, PROVISIONS,
STOCKS AND COTTON.

Write for our Daily Market Letter

Your Interests Are Our Interests

Special attention given to cash
grain shipments

GRAIN RECEIVERS

CHICAGO

CHICAGO

KANSAS CITY

A. L. SOMERS, Pres. C. W. BUCKLEY, Sec'y and Treas.
SOMERS, JONES & CO.
 (Incorporated)
 COMMISSION MERCHANTS
 82 Board of Trade Bldg., Chicago
 GRAIN AND FIELD SEEDS
 CONSIGNMENTS AND ORDERS FOR FUTURE DELIVERY
 SOLICITED. :: LIBERAL ADVANCES ON CONSIGNMENTS

For Intelligent, Prompt and Efficient Service
 Consign to
Rosenbaum Brothers
 Commission Merchants
 77 Board of Trade Chicago

R. J. THRESHER, Pres. L. A. FULLER, Sec'y
THRESHER-FULLER GRAIN CO.
 Grain Commission Merchants
 CONSIGNMENTS SOLICITED
 Grain Bought and Sold for Future Delivery
 311-14 Board of Trade KANSAS CITY, Mo.

Square Dealing and Top prices.
 If we have not handled your Chicago Business, try us.

 Suite 36, Board of Trade Bldg., CHICAGO.
 Grain Receiving and Commission Merchants.

NO USE TRYING
 to get better service than that afforded by
CRIGHTON & CO.
 402-403 Royal Insurance Bldg., CHICAGO
 Send us your consignments and become one of our pleased patrons

J. K. HOOPER President ERVIN A. RICE Vice-President E. G. BROWN Sec'y-Treas.
HOOPER GRAIN CO.
 OAT SHIPPERS
 Postal Telegraph Bldg., Chicago
 OPERATE ATLANTIC ELEVATOR AND GRAND TRUNK WESTERN ELEVATORS, CHICAGO

H. M. PAYNTER
 GRAIN COMMISSION
 Special attention given to consignments of grain and seeds
 Orders in futures carefully executed
 700-718 Royal Insurance Bldg., Chicago
 All business transacted through and confirmed by H. W. Rogers & Bro.

H. W. ROGERS, Pres. J. C. ROGERS, Vice-Pres. C. J. HURLBUT, Sec'y and Treas.
ROGERS GRAIN CO.
 (Incorporated)
 Buyers, Shippers and Exporters of GRAIN
 Elevator Proprietors on Illinois Central and other Railroad Systems
 Main Office: 700-701 Royal Insurance Building CHICAGO

BOGERT, MALTBY & CO.
 (INCORPORATED)
 COMMISSION MERCHANTS
 Correspondence and Consignments Solicited
 Orders for futures delivery carefully executed.
 Screenings and Mill Feed
 306-308 Postal Telegraph Bldg., CHICAGO

Hulburd, Warren & Chandler
 Stock Brokers and Commission Merchants, Grain and Provisions
 Business solicited in any department Receiving, Shipping, Futures
 202 LA SALLE ST. CHICAGO

Good Prices
 Prompt Returns
 Very Best Attention
AND W. A. FRASER CO.
 "They're Running Mates"
 MINNEAPOLIS CHICAGO MILWAUKEE

FREMONT

Nye, Schneider, Fowler Co.
 GRAIN DEALERS
 Corn for feeders. Milling wheat a specialty, both winter and spring. Write for samples and prices. Shipment via C. & N. W. R. R.
 General Offices, - - - FREMONT, NEB.

BROOKLYN HAY & GRAIN CO.
 HAY, STRAW AND GRAIN
 COMMISSION MERCHANTS
 ON ALL MARKETS IN NEW YORK HARBOR
 Office: Borough of Brooklyn, New York

W. H. MERRITT & CO.
 GRAIN BUYERS AND SHIPPERS
 CORRESPONDENCE SOLICITED
 87 Board of Trade CHICAGO, ILL.

L. F. MILLER & SONS.
 Receivers and Shippers of GRAIN, FEED, SEEDS, HAY, ETC.

OFFICE: 2931 N. BROAD ST., PHILADELPHIA, PA.
 CONSIGNMENTS SOLICITED. Special attention given to the handling of CORN AND OATS.
 REFERENCES: Manufacturers' National Bank, Philadelphia, Pa.
 Union National Bank, Westminster, Md.

F. H. PEAVEY & CO.
 MINNEAPOLIS, MINN.
 GRAIN RECEIVERS
 Consignments Solicited.
 MILLING WHEAT A SPECIALTY

Cargill Elevator Company
 WHOLESALE FIELD SEEDS
 MINNEAPOLIS, MINN.

CINCINNATI
THE GALE BROS. CO.
 Grain Merchants
 Largest and best handlers of off grades in the central western states. An expert grain man at the head of each grain department. Submit samples.
 CINCINNATI, OHIO

NEW YORK CITY

ARMOUR GRAIN CO.
 GRAIN DEALER'S
 CONSIGNMENTS SOLICITED. This department is fully equipped in every way to give the very best service in Chicago.
 205 La Salle St. CHICAGO

FREEMAN BROS. & CO.
 Hay, Straw and Grain
 COMMISSION MERCHANTS
 Correspondence and Consignments Solicited. Market Reports on Application.
 66 Board of Trade CHICAGO, ILL.
 Grain bought and sold for future delivery.

YOU COULDN'T

BURN THIS ONE DOWN IF YOU TRIED



It is built entirely of Concrete and Steel, and we put it up in 60 days. If you are about to build you had better see us, or let us know when and where we can see you.

MACDONALD ENGINEERING CO.
Specialists in Concrete
549-53 Monadnock Bldg. CHICAGO

John S. Metcalf Co.

Builders of

Terminal Elevators

Concrete Storage Bins

Transfer Elevators

Drawings and Specifications

THE TEMPLE, CHICAGO

Witherspoon-Englar Company

Designers and Builders of

FIREPROOF Grain Elevators



Cut shows four reinforced concrete grain tanks 30 ft. diameter, 60 ft. high, connected with brick operating house 30x60 feet, erected for the American Maize Products Co. at Roby, Ind.

Designs and estimates promptly furnished for all kinds of buildings for the handling and storage of grain in any locality.

1244-1250 Monadnock Building, Chicago, Ill.

YOUNGLOVE Builds ELEVATORS complete, or will furnish and install your repairs. We have the men and make this a specialty.

YOUNGLOVE CONSTRUCTION CO., 219 Grain Exchange, Sioux City, Iowa.

SEEDS

THE ALBERT DICKINSON CO.
DEALERS IN
GRASS SEEDS, CLOVERS, FLAX SEED, LAWN GRASS, BEANS,
PEAS, POPCORN, BIRD SEEDS, BUCKWHEAT, BAGS, ETC.
CHICAGO, ILL. Branch: Minneapolis, Minn.

Elwood's Grain Tables. A book needed by every grain dealer. It shows the value of any number of bushels or pounds of wheat, rye, oats, corn or barley at any given price from 10 cents to \$2.00 per bushel. Cloth bound, 200 pages. Mailed on receipt of price, \$1.25, by MITCHELL BROS. CO., 315 Dearborn St., CHICAGO

THERE IS BUT ONE "CYCLONE" DUST COLLECTOR

THE KNICKERBOCKER

No Back Pressure "1905" Cyclone.

Saves Its Cost in Horse Power.

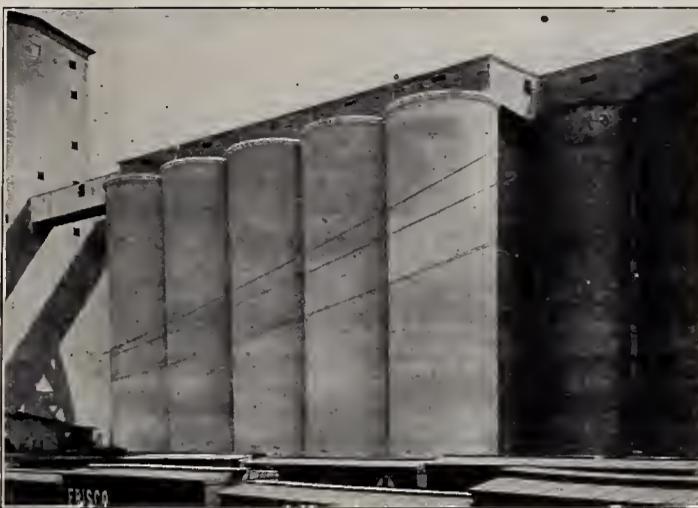
Built Any Size, Any Capacity.



Manufactured By

The Knickerbocker Company,
JACKSON, MICHIGAN.

JAMES STEWART & CO.

Designers and Builders of GRAIN ELEVATORS in all parts of the world

Recent concrete addition to C. M. & St. P. Ry. Co.'s tile elevator at Coburg, Mo.

GRAIN ELEVATOR Department

1811 Fisher Building CHICAGO

W. R. SINKS, Manager

R. H. FOLWELL, Engineer

We also do general contracting and have offices in the following cities
Write or call on any of them

CHICAGO, ILL.—1811 Fisher Bldg.

NEW YORK—130-137 Broadway

PITTSBURG, PA.—Westinghouse Bldg.

SAN FRANCISCO, CAL.—Powell and Geary Sts.

ST. LOUIS, MO.—Lincoln Trust Bldg.

NEW ORLEANS, LA.—Hibernia Bank Bldg.

MONTREAL, CAN.—Sovereign Bank Bldg.

Fireproof Grain Elevator

Recently completed for the Chicago, Burlington & Quincy Railway Co. at Harlem (Kansas City), Missouri.

This elevator is an entirely new type throughout, originated, designed and constructed by

The Barnett & Record Company

Engineers and General Contractors

MINNEAPOLIS, MINNESOTA

GRAIN ELEVATOR
PLANS AND SPECIFICATIONS

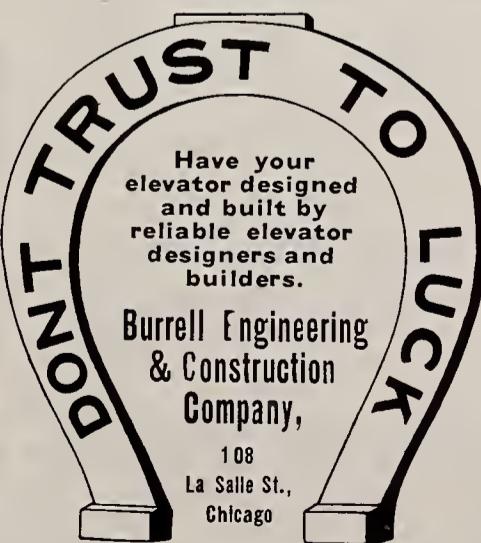
MOULTON & EVANS

406 CORN EXCHANGE

MINNEAPOLIS - MINNESOTA

GRAIN ELEVATOR
CONSTRUCTION OUR SPECIALTY

Telephone, Monroe 1614

OLSON BROTHERS & CO.
ENGINEERS and CONTRACTORSGrain Elevator Construction Power Transmission
Elevating and Conveying Machinery
703-707 Bloomingdale Avenue
CHICAGOFred Friedline & Company
DESIGNERS AND BUILDERSTransfer, Terminal and Country Elevators,
Warehouses, Tankage in Frame, Iron-Clad
or Fire-Proof Construction, Concrete TanksPlans and Specifications a Specialty.
Write for Sketches and Estimates.253-261 La Salle Street, CHICAGO.
C. M. SECKNER FRED FRIEDLINELong Distance Telephone
Main 799

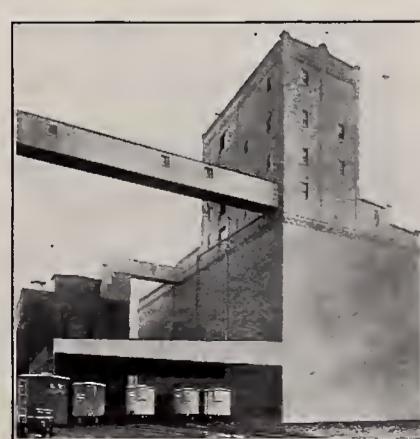
G. T. HONSTAIN

Contractor and Builder of

Grain Elevators
29th St. and Grand Ave.
MINNEAPOLIS - MINN.

A few elevators recently completed

Northwestern Consol. Minn. Co., M'n'p'ts	1,000,000
Nebraska City & Ill. Ele. Co. Chicago	2,000,000
Bartlett Frazier Co.	1,000,000
H. Rogers Co. St. Louis	5,000
F. H. Peavey & Co. Minneapolis	1,070,000
S. S. Linton & Co.	650,000
" "	450,000
Interstate Grain Co.	500,000
City Elevator Co.	400,000
Security Grain Co.	400,000
Royal Milling Co. Great Falls, Mont.	1,000,000
Jenison Bros. Janesville, Minn.	100,000
400 country elevators	from 10,000 to 10,000





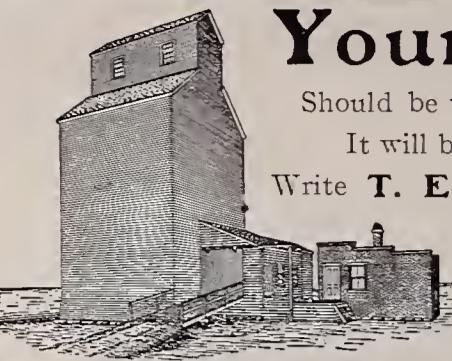
The Gallatin County Farmers' Elevator at Belgrade, Mont.

Minneapolis Steel & Machinery Co.
MINNEAPOLIS, MINN.

BRANCH OFFICES:

DENVER, COLO, 313 Mining Exchange SALT LAKE CITY, UTAH, 324 Dooly Block
SEATTLE, WASH., 338 Globe Bldg. EL PASO, TEXAS, 313 E. P. & S. W. Bldg.
BUTTE, MONT., 352 Phoenix Bldg.

Your Elevator



Should be the best that money can buy.

It will be if IBBERSON builds it.

Write **T. E. IBBERSON**, 308-310-312
Corn Exchange, Minneapolis,
Minnesota.**He Knows How.**

STEEL STORAGE & ELEVATOR CONSTRUCTION CO.

DESIGNERS AND BUILDERS OF

STEEL OR CONCRETE GRAIN ELEVATORS

BUFFALO, N. Y.

G. H. BIRCHARD
Contractor of
Grain Elevators
Especially Designed for Economy of
Operation and Maintenance
LINCOLN, NEB.

N. A. GRABILL
FURNISHER AND BUILDER OF
MILLS AND ELEVATORS
DALEVILLE, IND.
Indianapolis Office, 617 Board of Trade Bldg.
Also State Representative for
JOHNSON'S GRAIN DRYER & RENOVATOR

Grain Elevators
BUILT
G. M. SLOAN
5804 Superior St., Chicago, Ill.

A "WANT AD" in the "AMERICAN ELEVATOR AND GRAIN TRADE" will
do the business.

W. N. CLAUS & CO.
CONTRACTORS AND BUILDERS
—OF—

Grain Elevators and Flour Mills

How about that new Elevator or the one that needs repairing? Don't neglect or hesitate to write us about it, for we will be glad to hear from you. We guarantee to do good work, and can execute our contracts promptly. Just give us a trial and see how nicely we can convince you of the fact.

Plans, Specifications and Estimates furnished

Repair work promptly done

PLYMOUTH,

IOWA

Not the Biggest Elevator in the World

BUT THE BEST

Grain Elevators
of Fireproof Brick
Construction
In Any Design

Write for Plans and Estimates

S. H. Tromanhauser
Room 3, Old Chamber of
Commerce Building
Minneapolis, Minnesota

The Wiederholdt System

Reinforced Tile Concrete

THE MOST IMPROVED AND APPROVED SYSTEM FOR

**Grain Elevators, Mill Construction,
Grain Bins, Silos, Storage Bins,
Tanks, etc.**

BUILT EXCLUSIVELY BY

Wiederholdt Construction Co.

606-607 New National Bank of Commerce Bldg.,

ST. LOUIS, MO.

GRAIN ELEVATORS

STORAGE TANKS or WAREHOUSES

IN
Wood or FIRE-PROOF Materials

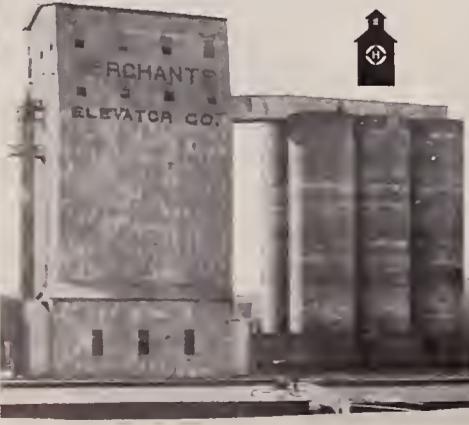
PLANS—SPECIFICATIONS—ESTIMATES

We design and erect the structural
work and mechanical equipment of Grain
Handling or Storage Plants from a country
receiving station to a terminal transfer
house.

L. O. HICKOK & SON

Engineers and Contractors

320 Flour Ex'ge Minneapolis, Minn.





GOOD JUDGMENT

for fire insurance is to select the company patronized by your fellow grain dealers. The



Is insuring over 2,200 country elevators for over \$9,000,000. For conditions to unite with them, write

C. A. McCOTTER, Secretary

Millers' Mutual Fire Insurance Association of Illinois

ALTON, ILLINOIS

Established 1878

Insurance on Flour Mills and Elevator Properties.

Cash Assets - - \$366,891.05

A. R. McKinney, Sec'y

MILL OWNERS' Mutual Fire Insurance COMPANY

DES MOINES, IOWA
Organized 1875

Insures Mills, Elevators, Warehouses and contents

Net Cash Assets \$261,480.33
Losses Paid \$1,473,780.50
Saved to Policy Holders .. \$1,909,196.60

J. G. SHARP, Sec.



Agents wanted. GIBBS RESPIRATOR CO., "B" 124 East Ave., Oak Park (Chicago), Ill.

Plain Gas Engine Sense

By E. L. OSBORNE

A BOOK for the man who has a gas or gasoline engine and wants to operate it to the best advantage.

The book is written in plain language and thoroughly covers the field of gas engine operation.

125 Pages of Practical Suggestions
PRICE 50 CENTS

MITCHELL BROS. CO
315 Dearborn Street, CHICAGO, ILL.

Millers' National Insurance Co.

205 LA SALLE STREET

CHICAGO - - ILL.
CHARTERED 1865

Insurance with a maximum of security at a minimum of cost for ELEVATORS, WAREHOUSES and CONTENTS, on the Mutual Plan.

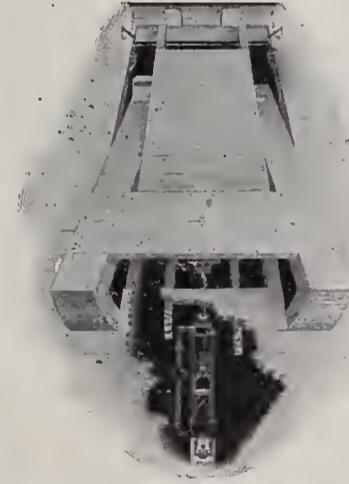
Five-Year Policies or short term policies on grain, if required.

Semi-Annual Assessments costing about one-half Stock Company Rates.

No conflagration hazard.

Gross Assets \$5,288,714.18
Net Cash Surplus \$930,166.99

Reliance Automatic Dump Controller



This device is the only Automatic dump controller on the market that requires neither hand nor power to operate.

It causes the dump to settle down easily without the least jar or jerk and prevents accident to wagon or team.

This device is a small cylinder filled with cold tested oil in which travels a piston which is attached to the front end of the dump. The motion of the dump is controlled by the forcing of this oil through a regulating valve, which can be adjusted to suit operator.

Equip your dumps with them and avoid accident in the handling of the coming crops.

Shipped on trial to responsible parties.

Write us for particulars and price.

RELIANCE CONSTRUCTION CO.,
625 Board of Trade Building, Indianapolis, Ind.

Don't Buy Gasoline Engines

space occupied and practical overcoming of vibrations. Costs less to buy—less to run. Send for Catalogue.

THE TEMPLE PUMP COMPANY, Manufacturers,

Meagher and 15th Streets, CHICAGO

THE OLD RELIABLE



ORGANIZED
1881
INSURES ELEVATORS
AND GRAIN

LANSING, MICH.

PERMANENT
OR SHORT
TERM POLICIES

JEFFREY FINGER TRAY ELEVATOR



HANDLES BARRELS, BOXES,
BAGS and GENERAL FREIGHT.
ELEVATING CAPACITY:
600 Packages Hourly.

Equipped with special inclined unloading and traveling fingers.
If interested ask for Jeffrey Catalog No. D80. :: :: ::

The Jeffrey Mfg. Co.

COLUMBUS: OHIO; U. S. A.
NEW YORK, CHICAGO, BOSTON,
ST. LOUIS and DENVER.

ROCKFORD Address Dept. 7 ROCKFORD ENGINE WORKS
Rockford, Ill., U. S. A.
The Engine that
will please you.
ELEVATOR
ENGINES
From 2 to 30 H. P.
any style.
Write for spe-
cial price.
NEAT—NOBBY—HANDY
ROCKFORD
Mention this paper.



LEWIS GAS ENGINES

ALWAYS FILL THE BILL

Starts without cranking. Patented features make it more durable, smoother running, easier working than ordinary engines. Automatically adjusts itself—a light impulse for light work—powerful impulse for heavy load—saving fuel, wear and tear. Sold for twenty years. Thousands in use. Tell us what you will use it for, and we will recommend size and give price

WRITE TO-DAY

J. Thompson & Sons Mfg. Co.
Dept 11, BELOIT, WIS.

ARE YOU getting your share of business? If not, try an AD. in the
AMERICAN ELEVATOR AND GRAIN TRADE

Rates on Application

Fumigation Methods

By W. G. JOHNSON
Contains full directions for Fumigating Mills and Elevators

313 Pages Price \$1
MITCHELL BROS. CO.
315 Dearborn St., Chicago

Elwood's Grain Tables

Show the value of any number of bushels or pounds of WHEAT, RYE, OATS, CORN or BARLEY at any given price from 10 cents to \$2.00 per bushel. One of the most useful books ever offered to millers. Indorsed by prominent millers and grain dealers. Bound in cloth, 200 pages. Mailed on receipt of price

\$1.25
Mitchell Bros. Co., 315 Dearborn Street, Chicago, Ill.

until you investigate "The Master Workman," a two-cylinder gasoline, kerosene or alcohol engine, superior to any one-cylinder engine; revolutionizing power. Its weight and bulk are half that of single-cylinder engines, with greater durability. Endorsed by the Board of Underwriters. Especially adapted for grain elevator work, owing to steady pull, quick and easy starting, small

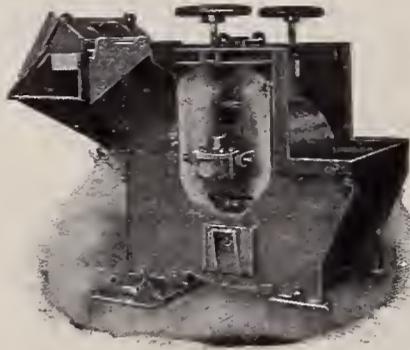
THE WORST THING THAT HAPPENS to an ELEVATOR

is for it to stop. Arbitrarily stop. The value of your labor, your time, your laborer's and mechanic's time; your waiting customers' time; the time of the cars on the track; of your whole plant; is lost, when your elevator is arbitrarily stopped.

There is no contentment, no profit, during stoppage.

If you should calculate this loss accurately it would surprise you.

Every Choke Down Costs You Money



Sometimes big money. The constant fear of a choke which compels you to slow down the feed into your Boot, costs you *infinitely more money*; because it is a continuous loss. Not less than 50% of the actual capacity of your elevator.

The Hall Non-chokable Boot actually costs you nothing, because it doubles the leg capacity. A smaller size is needed. Cups all run full, without attention, and it never stops. Can you estimate its value?

We send it free on trial to be proved by you, guaranteed by us. Catalogue "E" illustrates it.

HALL DISTRIBUTOR CO.

506 Range Bldg., Omaha, Nebr.

SEE THAT YOUR CONTRACTS CALL FOR



THE CUTLER STEAM DRYER

SOLD BY ALL MILL FURNISHERS

Not an Experiment. In successful use 25 years drying CORN MEAL AND HOMINY. BREWERS' GRITS AND MEAL, BUCKWHEAT, RICE AND ALL CEREAL PRODUCTS.

ALSO SAND, COAL DUST, GRAPHITE, CLAY AND ORES

Automatic in operation, requiring no attention. Double the capacity of any other Dryer sold for same price.

THE CUTLER CO., North Wilbraham, Mass.
CATALOG ON REQUEST

Elwood's Grain Tables

Show the value of any number of bushels or pounds of **WHEAT, RYE, OATS, CORN or BARLEY** at any given price from 10 cents to \$2.00 per bushel. One of the most useful books ever offered to millers. Indorsed by prominent millers and grain dealers. Bound in cloth, 200 pages. Mailed on receipt of price

\$1.25

MITCHELL BROS. CO., 315 Dearborn Street, Chicago, Ill.

NOW
YOU NEED A

Hess (U. S.) Moisture Tester

Why Buy Water at Corn Prices?

Anyone can use it. Makes correct tests in 20 minutes. Heated by gas, gasoline, alcohol or kerosene.

PRICES, F. O. B. CHICAGO

2 Compartment, Complete	\$40.00
4 Compartment, Complete	\$50.00
6 Compartment, Complete	\$60.00
Torsion Balance	\$23.00

Recommended and used by U. S. Dept. of Agriculture.

Hess U. S. Moisture Testers are used by many leading grain dealers and exchanges.

Send for free booklet, with instructions for testing grain for moisture.

Hess Warming & Ventilating Company

910 Tacoma Building, CHICAGO

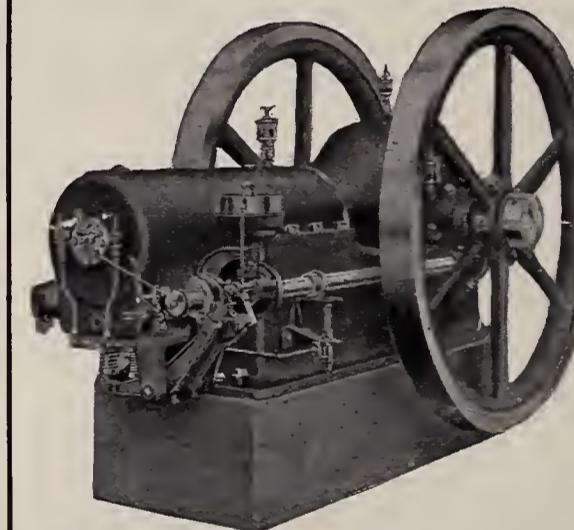
P. S.—Hess Grain Driers are used everywhere. Made in all sizes—for all kinds of grain and seed.

HESS-DRIED IS BEST DRIED

The Field Engine

If you are interested in a High Grade Engine; one that is being used by the United States Government for their Wireless Equipment Stations in Alaska; over 50 of which have been installed in the Public Schools of Washington, D. C., with which to operate their Heating and Ventilating Systems; an Engine, the sales of which to Manufacturers in the Eastern States, during the past three years aggregate over 18,000 Horse Power. Send for our Special Catalog No. 60. It will interest you.

Jackson, Michigan



THE FIELD-BRUNDAGE CO.,

CUTS FIRST

THEN GRINDS THE FEED

Great capacity for work! Small demand for power! That is the established, repeated, emphasized record made by the "Corn Belt" Feed Mill. Does not heat the ground feed. The cutter head has a system of knife rings which cuts up the corn and cob—shears it into bits as fine as some mills leave it at the finish—then it goes into the grinder where it is still further reduced and made much finer than in any other grinder. No other feed mill can equal the "Corn Belt" for grinding new, soft and spongy corn.

THE "CORN BELT" FEED MILL ON 20 DAYS' FREE TRIAL

Let us send you this money-making Feed Mill for a 20-days' free trial. Just the machine for custom work. The only mill that grinds the cobs evenly with the corn, producing the true "Corn and Cob" meal, nature's balanced ration. The only mill with a cutter head that reduces the feed as fine as possible before the grinding begins. Combines the cutting and shearing process with a grinding mechanism that gives the exact degree of fineness. The "Corn Belt" Mill has the largest capacity, lightest draft and greatest strength of any feed mill made. It does not beat the ground feed. Requires less power than others because it cuts before it grinds. For easy grinding and rapid work, it has no equal. We build several styles and sizes of "Corn Belt" Mills, both Sweep and Power (Gasoline or Steam). The "Corn Belt" does all kinds of grinding—turns out an enormous amount of work with less power than any other. Will stand the hardest kind of usage. Built to last for years. All parts subject to strain made extra heavy. All parts interchangeable. Send for Free Book, "Grinding Feed Into Dollars," and learn all about the points of superiority possessed by the "Corn Belt" over other feed mills. Then let us ship the machine to you on 20 days' free trial. Convince yourself by actual daily test, for 20 days, that every claim we make is true, and that this is the machine you ought to own.



SPARTAN MFG. CO., 1162 Main Street, Pontiac, Ill.

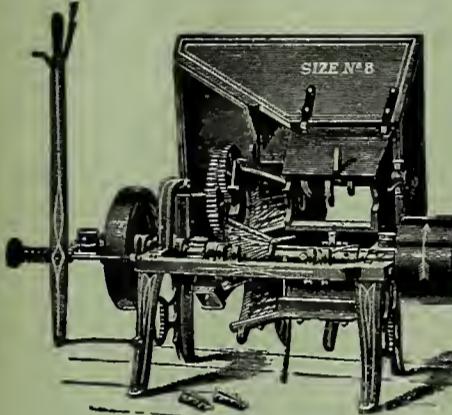
PERFORATED SHEET METAL

We have a first-class, up-to-date plant for the manufacture of perforated metal and can fill orders promptly. Our prices are right and we furnish goods which we guarantee to be the best. A screen that lays flat and fits the frame, not only does better work, but increases capacity. We know how to make them. Prompt shipment is our rule.

THE STRONG-SCOTT MANUFACTURING CO. MINNEAPOLIS, MINN.

Northwestern Agents for Richardson Automatic Scales, Invincible Cleaners, Knickerbocker Dust Collectors

Bowsher's All-Around Feed Mill



(Sold with or without sackng elevator)

It CRUSHES ear corn (with or without shucks) and GRINDS all kinds small grain and KAFFIR IN THE HEAD. Has CONICAL shaped GRINDERS, DIFFERENT FROM ALL OTHERS. RUNS LIGHT. Can run EMPTY WITHOUT INJURY. Ahead of rolls or stones in speed and quality of work.

YOU NEED a mill now. Quit THINKING about it. COMMENCE to investigate. Give US a chance and we'll tell you WHY we think ours is the best. SEVEN SIZES: 2 to 25 H. P. Circular sent for the asking.

Drive pulley overhung. Belt it from any direction. Makes complete independent outfit.

THE N. P. BOWSHER CO., South Bend., Ind.

Progressive Grain Men

Are interested in all phases of the grain business, the milling as well as the marketing of grain. They aim to keep in touch with the consuming trade and know what becomes of their grain in the markets of the world. Such men find the

AMERICAN MILLER

a big help because it fully covers the business of milling wheat and other cereals.

Published on the first of each month, it gives all the news of the milling world and prints a large amount of technical matter that is of interest to the elevator man as well as the miller.

We will send the American Elevator and Grain Trade and American Miller to one address for one year at the combination price of \$2.50. Send in your subscription now.

SCIENTIFIC Attrition Mills

All we ask you to do is to write us and tell us the kind of work you want to do and we will be glad to make you a proposition. No expense to you.

Greatest Results.

Least Power.

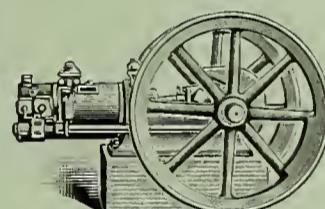


Built for FAST, FINE GRINDING. Grinds Corn, Chop Feed, Bran, Offal, Screenings, Small Grain, and a great variety of other products.

Our new Catalogue is ready and we will be pleased to send you a copy.

THE FOOS MFG. CO.
(Builders of Attrition Mills since 1878)
SPRINGFIELD, OHIO

For Elevator Service



“OTTO” Gasoline Engines

There are many reasons why “Otto” Engines are the most desirable for service in grain elevators.

“Otto” water jackets are cast separate from the cylinder.

“Otto” electric ignition is safe and sure. “Otto” and “Economy” are synonyms. “Otto” design, workmanship and materials are unequalled.

“Otto” engines deliver their actual rated horsepower and we are often able to recommend a smaller engine than the customer would select. The construction is such that water is used economically and the gasoline consumption is small.

We have a large, illustrated catalogue fully describing our line and will send you a copy free if you will write for it.

The Otto Gas Engine Works
Philadelphia, Pa.

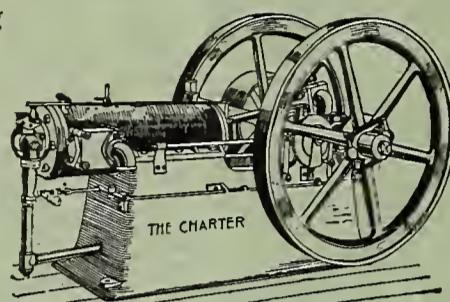
The Power that Moves the Grain

CHARTER GASOLINE ENGINES

Also Gas, Distillate, Alcohol, Kerosene, Naptha,

For Operating Mills, Grain Elevators, etc.

Open Jacket Type is Interesting

Stationaries, Portables,
Hoisters, Pumping,
Dynamo and Boat Outfits**CHARTER
GAS ENGINE CO.**

400 Locust St., Sterling, Ill., U. S. A.

DIXON'S SILICA-GRAPHITE PAINT

THE PROVEN SHIELD FOR IRON AND STEEL. INERT PIGMENTS. GOOD COVERING CAPACITY, DURABILITY RECORDS IN ALL CLIMATES. Write for Booklet 17-B.
JOSEPH DIXON CRUCIBLE COMPANY, JERSEY CITY, N. J.



Points regarding the

Day Dust Collector

to bear in mind.

It saves Power in operating your Cleaning Machine

One of many unsolicited credentials:

January 8th, 1909.
"Just got the Collector placed and it works like a charm. It's simply a dandy—can't be beat." CAMBRIDGE MILLING CO.

Write Us

Please give inside measurements of Fan outlet (or if two fans measurement of each) on cleaning machine for which Collector is wanted in writing for prices.

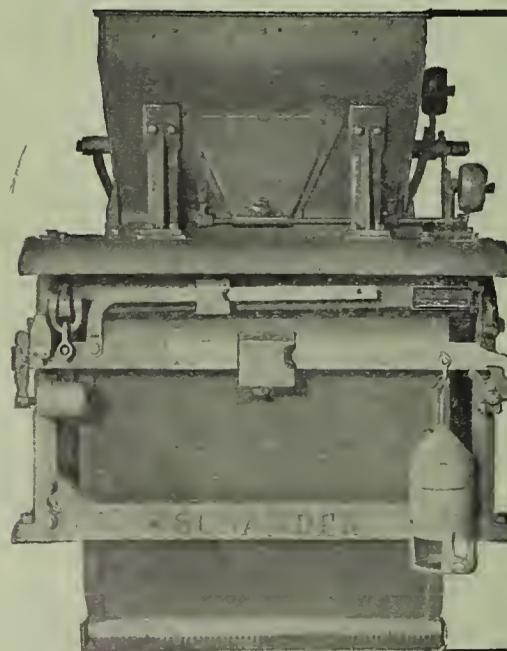
THE DAY COMPANY1118-26 Yale Place
MINNEAPOLIS, MINN.

The New Bill of Lading

will make claims for shortages difficult to collect in full. You can prevent the leakages in transit by using the Kennedy Car Liner in the old cars that you load. Made by

FRED. W. KENNEDY,

Shelbyville, Ind.



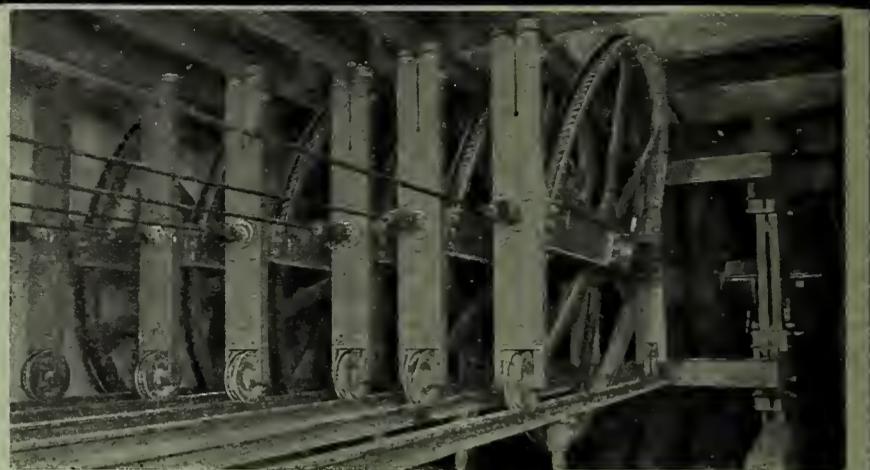
Before Buying an
Automatic
Scale
See the
SONANDER

Power Appliance
Mfg. Co.,

412 S. 3d St., Minneapolis, Minn.

Elevator Outfits and Supplies

WEBSTER Machinery



Rope Drives installed in \$3,000,000 Flour plant of Hecker-Jones-Jewel Milling Co., New York City

For Grain Elevators and Flour Mills

We have furnished many of the Giant Plants of the Country with our Specialties. Long experience and wide reputation are back of every contract we undertake.

We Design, Manufacture and Install Elevating, Conveying and Power-Transmitting Machinery

WRITE US YOUR WANTS

WEBSTER M'F'G CO.

Main Office and Works: 1075-1111 West 15th St., Chicago

Branches: New York, 88-90 Reade St. Philadelphia, Penn Bldg.
Denver, 726 Symes Bldg., W. R. Elliott, Mgr.

Offices: Seattle, 1111 Am. Bank Bldg., Geo. E. Sibbett, Mgr.

WELLER Made

**Weller Improved
Self-Locking Distributer**

We build distributers in various styles and for various purposes and businesses.

The one shown in illustration is giving satisfaction in many plants and is unquestionably the most unique of its kind on the market. We build it in a large variety of sizes and with any desired number of outlets.

Our latest catalog contains 512 interesting pages, and explains our line in detail. We send it free when you ask.

Weller Mfg. Co.
CHICAGO